



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

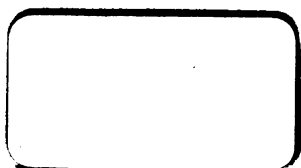
### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

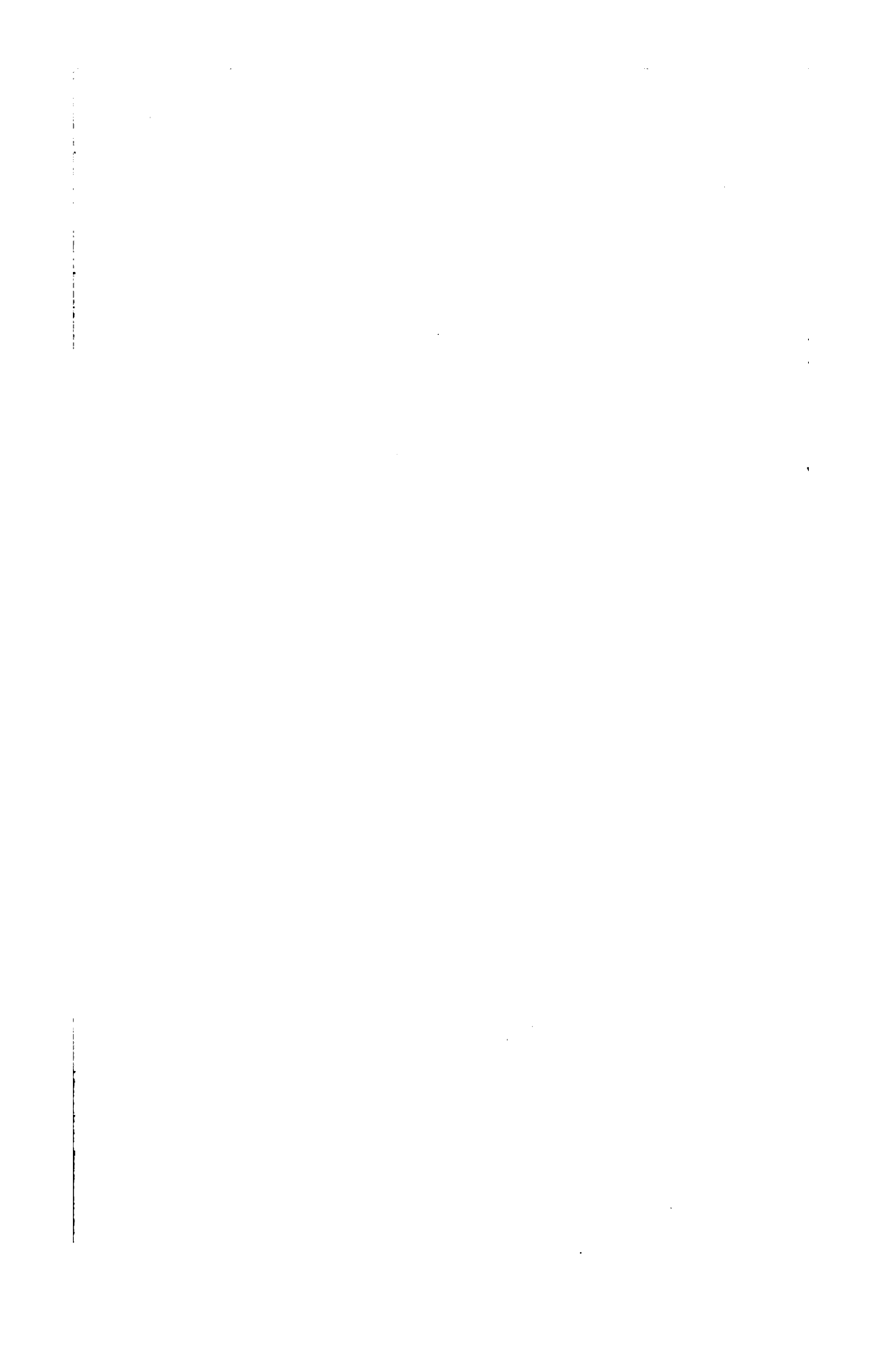




20. a. 15.











**TREATISE**  
**ON THE**  
**MORBID RESPIRATION**  
**OF**  
**DOMESTIC ANIMALS.**



PRINTED BY JOHN GRAHAM AND CO. GLASGOW.

A  
**TREATISE**  
ON THE  
**MORBID RESPIRATION**  
OF  
**DOMESTIC ANIMALS:**

ILLUSTRATIVE OF THE  
**DISEASES OF THE ORGANS OF RESPIRATION**

IN  
**HORSES, COWS, SHEEP AND DOGS,**  
**WITH THE MOST APPROVED METHODS OF TREATMENT;**

**INCLUDING**  
**A VARIETY OF CASES AND DISSECTIONS.**

**By EDWARD CAUSER, SURGEON,**  
**VETERINARY PRACTITIONER, AND LECTURER ON THE PRINCIPLES AND PRACTICE**  
**OF VETERINARY MEDICINE AND SURGERY IN GLASGOW, AND**  
**FORMERLY VETERINARY SURGEON TO HIS MAJESTY'S**  
**FOURTH REGIMENT OF DRAGOONS.**

---

**GLASGOW:**  
**JOHN SMITH & SON;**  
**OLIVER & BOYD, EDINBURGH;**  
**BEILBY & KNOTTS, BIRMINGHAM; AND**  
**LONGMAN, HURST, REES, ORME & BROWN, LONDON.**

---

**1822.**



TO  
THE LECTURERS  
OF THE MEDICAL SCHOOLS  
IN LONDON,  
WHO HAVE MANIFESTED A LAUDABLE ZEAL AND  
INTEREST IN PROMOTING  
THE EDUCATION OF THE PUPILS BELONGING  
TO THE VETERINARY COLLEGE,  
BY ALLOWING THEM FREE ADMISSION  
TO THEIR LECTURES,  
**THIS WORK,**  
PUBLISHED WITH A VIEW OF FACILITATING  
THE PRACTICE OF THE ART  
WHICH THEY HAVE CONDESCENDED TO PATRONISE,  
IS, WITH THE MOST PROFOUND GRATITUDE AND RESPECT,  
INSCRIBED  
BY THEIR MOST OBEDIENT  
AND VERY HUMBLE SERVANT,  
**THE AUTHOR.**



## ADVERTISEMENT.

---

THE following Work forms the First Part of a System of Veterinary Medicine and Surgery. Besides a Description of the Diseases of the Organs of Respiration, and the appropriate Treatment, it contains Observations on Unsoundness of Horses, produced by such Diseases, and occasional Remarks applicable to Human Medicine. The whole forms a Work of Practical Utility, not only to the Scientific Practitioner, but also to Private Gentlemen, Sportsmen, Farmers, Graziers, and all Persons interested in the Management of Domestic Animals.

Should this Part meet with the desired success, it is the intention of the Author shortly to publish a Second, which will embrace the interesting class of Abdominal Diseases.



## CONTENTS.

<b>Abscess,</b>	<i>Page 23</i>
in the Lungs of a Horse,	131
in the Throat,	56
<b>Animation, Case of Suspended,</b>	132
<b>Blaine on Inflammation of the Lungs in Sheep,</b>	154
<b>Boardman on the Treatment of Locked Jaw,</b>	163
<b>Broken Wind,</b>	207
Cases of	138-210
<b>Case (Disputed) of Lameness,</b>	7
of Do.	10
<b>Cases, on Recording,</b>	15
<b>Catarrh,</b>	30
Causes of,	31
in Horses, Symptoms of,	33
Treatment of,	36
Cases of,	47-64
in Cows,	69



Catarrh in Cows, Cases of, . . . . .	Page 71-72
----- in Sheep, . . . . .	74
----- in Dogs, . . . . .	79
----- Cases of, . . . . .	81-82
Colds, Necessity of Early Attention to, . . . . .	135
College, Veterinary, . . . . .	4
Diseases of Sheep, . . . . .	74
----- of Dogs, . . . . .	79
Distemper in Dogs, . . . . .	79
----- Cases of, . . . . .	82
Dogs, Treatment of . . . . .	80
Dropsy, . . . . .	22
----- in the Chest of a Horse, Cases of, . . . . .	66-99
Examining Horses, Caution upon, . . . . .	10
Feron on Locked Jaw, . . . . .	171
Gangrene, . . . . .	24
Horse, Sudden Death of a, . . . . .	131
Inflammation, Observations on, . . . . .	19
----- Definition of, . . . . .	20
----- Causes of, . . . . .	21
----- Terminations of, . . . . .	22
----- of the Lungs in Horses, . . . . .	85
----- Definition of, . . . . .	85
----- Causes of, . . . . .	86
----- Symptoms of, . . . . .	86
----- Treatment of, . . . . .	87
----- Cases of, . . . . .	97-191
----- Terminations of, . . . . .	199
----- in Cows, Cases of, . . . . .	140

Inflammation of the Lungs in Sheep, . . . . .	Page 153
----- Mr. Blaine's account of	154
----- in Dogs, Cases of, . . . . .	156
----- of the Respiratory Passages in Horses,	
Cases of, . . . . .	125
Introductory Observations, . . . . .	17
Kidney, Case of Diseased, . . . . .	120
Locked Jaw, . . . . .	161
----- Causes of, . . . . .	161
----- Symptoms of, . . . . .	162
----- Treatment of, . . . . .	163
----- Cases of, . . . . .	175
----- Observations upon, . . . . .	205
Mercury Useful in Locked Jaw, . . . . .	205
Murrain, . . . . .	70
----- Dr. Brocklesby's Description of, . . . . .	146
----- Remarks on, . . . . .	148
Origin of Veterinary Science, . . . . .	2
Pestilential Fever, . . . . .	70
Plan of the Work, . . . . .	16
Pursiveness, De Gray's Case of, . . . . .	138
Roaring in Horses, . . . . .	137
Rot in Sheep, . . . . .	76
Sore Throat, Treatment of . . . . .	36
Sulphur a Laxative in Inflammation of the Lungs in	
Horses, . . . . .	88
Suspended Animation, Case of, . . . . .	132
Tongue Enlarged from Catarrh, . . . . .	42

Veterinary College, . . . . .	Page 4
Science, Origin of, . . . . .	2
Surgeons, Observations on, . . . . .	6-12
White on Locked Jaw, . . . . .	173

A

## POPULAR SYSTEM,

&c. &c.

---

### INTRODUCTORY OBSERVATIONS.

**O**F the animals which man has domesticated and attached to himself, the most important, and by far the most useful, are the horse, the cow, the sheep, and the dog. They are so necessary to our wants, and connected with so many of our comforts and pleasures, that gratitude for their services, and our own interest, independent of humanity, would naturally direct our attention to

A

their diseases, and prompt us to employ every means in our power to mitigate their sufferings.

It is not difficult, therefore, to imagine how the science, which treats of the diseases of the inferior animals, and the methods of cure, would take its rise. We may trace it back to the earliest periods of the history of our race, when mankind still followed the primitive occupations of the agricultural or pastoral life. Even then the shepherd must have been familiar with the consequences of some destructive distemper, as spreading among his cattle, or as attacking the dog, the faithful companion of his wanderings, and must have sought among the plants around him, the simple means afforded by nature to alleviate their distress. The warrior also when he beheld the noble and courageous animal, that bore him on to victory, or preserved him from the pursuit of his enemies, sinking from the effects of his wounds and of fatigue, neglecting himself, would have first attended to the sufferings and wants of his expiring steed.

IF among rude and savage nations such an attention must have been paid to the diseases of these animals, a much greater degree of interest ought to be felt by a people that has made any considerable advances in civilization. For the value of them increasing with the refinement of manners, and habits of luxury and ease, rendering their services almost indispensable, a proportionably greater desire to preserve them in health, and to assist them during the attacks of disease, must be excited.

HENCE it is, that in this country, the long neglected science, of veterinary medicine and surgery, has now become of great importance, both on account of the more refined and luxurious manners of the inhabitants, and also on account of the improvements which have been made in the different breeds of these valuable animals.

It is upwards of thirty years since this science was introduced into Britain. Since that time

much has been done by government, by gentlemen of rank and fortune, as well as of the medical profession, and by the public at large, to encourage this branch of the healing art. With a view to form a national school, where it might be taught on scientific principles, and in order to remedy the ignorance and incompetency, almost proverbial, of the persons that undertook the treatment of the diseases of our domestic animals, a veterinary college has been erected in the immediate neighbourhood of London; and a medical gentleman, of the first-rate abilities, has been appointed professor. Pupils are admitted into the college upon paying the sum of twenty guineas, which constitutes them perpetual pupils. They are subject to some particular regulations; and, I believe, were formerly obliged to remain at the college, during the period of three years. It is, however, to be regretted that the directors of the institution do not at present insist on the observance of this excellent regulation.

INDEED were it not for the disinterested ben-

evolence and generosity, of some of the most eminent characters of the medical faculty, who have allowed the pupils of the veterinary college, the privilege of free admission to their lectures upon anatomy, surgery, medicine, chemistry, &c. it would be impossible for a single professor to do them that justice, (during the short period of their attendance at the college,) which is necessary to qualify them for the practice of the veterinary art.

By means of this institution a very considerable number of enlightened practitioners, of liberal education, whose study has been chiefly devoted to the veterinary art, have been gradually dispersed throughout the united kingdoms of Great Britain and Ireland, and in various foreign countries. Each regiment of cavalry also is supplied with a veterinary surgeon, where they are now liberally rewarded for their services, and have their medicines and instruments supplied by Mr. Coleman, *the present professor of the veterinary college, veterinary*



*surgeon general to the British cavalry, and to the Honourable Board of Ordnance.* But it was by raising veterinary surgeons to the rank of commissioned officers in the army, as Mr. Coleman very justly observes, (in the dedicatory portion of his elegant work, upon the structure, economy and diseases of the foot of the horse, to the King,) that his Majesty had done more to promote the veterinary art, than otherwise could have been effected in centuries. It has not only raised the art from contempt to respectability, but also induced many medical students of liberal education, to devote their services to its improvement. Great, however, as the beneficial consequences have been with which this has been attended, I must observe, that, in my opinion, it would prove still more advantageous both to the army, and to the practitioners themselves, if they had a few years of private practice, previous to their appointment to a regiment of cavalry.

VETERINARY surgeons in private practice have

numerous difficulties to contend with, chiefly owing to the formidable intrigues and low cunning of persons interested in the profession. By them their conduct and mode of practice are strictly scrutinized with a jealous and invidious eye, and various means are resorted to, for the purpose of making their practice or their opinions appear incorrect to their employers. The following circumstance, which occurred to the author, will convince the public, how cautious they ought to be in placing confidence in these people.

A very intimate acquaintance of mine had made an exchange with a gentleman, for a fine blood mare, which he found to be lame, and wished to have my opinion on the case. Upon inspecting the mare, a bone spavin upon one of the hind legs was so visible to the eye as not to require any particular examination, and at once accounted for the lameness, which was very great. I assured my friend that such was the case, and advised him to return her to her former proprietor; the latter however objected to take her

hack. The consequence was, the parties agreed to refer the case to two professional men, and if they did not agree, a third was to be called in, whose decision was to be final. I was accordingly appointed by my friend, and a farrier by the other gentleman. At the inspection, the spavin was of course as visible as formerly, and the mare was still very lame, so much so that a gentleman, passing by, remarked that she was going upon three legs. Notwithstanding this, the farrier declared that she was not lame, that she had not a bone spavin, and that she was as sound a mare as any in Britain. The consequence was, another farrier was called in, on whose veracity I thought I might confidently rely. I was obliged to be absent while this man was sent for; and, upon my return, I found the two farriers inspecting the mare in another place; and, to my utter astonishment, they both declared her to be a sound mare. My friend was therefore, according to the agreement, obliged to keep her, and for a time was very much chagrined at me. Some persons advised him, to turn her into a grass park;

but there she grew worse: in fact she became so lame, that after a month's trial of this plan, he was obliged to take her again into the stable. During this period he had taken several gentlemen out to see her, each of whom declared it to be a case of bone spavin; of which he himself was at length perfectly convinced.

WHEN the master of a public business, and the head of a family, so far deviates from every principle of truth and honesty, can we be surprised at the severe censures that are made on their conduct by almost every writer on farriery? Or need we wonder, if their children, and the persons in their employ, should take advantage of the bad example which is set them? When people become so lost to every moral and conscientious feeling, they become, whatever may be their station, at once nuisances to society, and dangerous to every person with whom they have any connexion.

A VETERINARY practitioner requires to be very

cautious, in his examination of horses which gentlemen are about to purchase, or in disputed cases of horses already purchased and suspected to be unsound. The following instance shews the necessity of this caution.

A GENTLEMAN bought a pair of carriage horses from a dealer. A suspicion arose that one of them was unsound, from a peculiar halt which he made when he was trotted in the carriage. The case was referred to the decision of two gentlemen as arbitrators, and I and two farriers were appointed by them to inspect the horse. We all examined him, and, not discovering any thing wrong about him, had him led out, in all paces, with a halter, and, finding him go quite sound, we put a bridle on him, set a man upon his back, and tried him in all paces again, with the same result. He was next put into a brake, along with his neighbour, where he evidently shewed a halt in his gait when trotted. This however the dealer alleged was owing to his leaning to his neighbour, and not being

accustomed to drawing. A certificate was made out, stating the above result of our inspection, and that we could not then decide whether the horse was lame or not. But to this the dealer objected, insisting that we should declare the horse to be either sound or lame. We therefore agreed, as we could not find any part wrong about him, and as he went perfectly sound when he was led and rode out, that we ought to consider him as a sound horse. A certificate to this effect was accordingly drawn out and signed. The proprietor, however, not being satisfied with this, and, having learned that the horse was a cast horse, from a regiment of dragoons, then lying in Edinburgh, he went there to investigate what was wrong with him. On inquiry he was informed that he had received an injury some time before, in his loins, by attempting to rise when lying under a rail, which separated the horses; against which rail he came with so much force, that he hurt his back, and had been since unable to carry baggage. The gentleman also observed that if we had put a boll of meal behind the man who

rode him, we should have found out what was wrong. The horse was accordingly returned to the dealer. I have met with a great number of other cases of lameness and unsoundness in horses, equally difficult of detection, which shall be specified in their proper places.

ONE great difficulty which veterinary practitioners experience, is to make the business pay them. They must appear as gentlemen, and are expected to keep up a respectable establishment, the burdens of which, independent of the high wages they have to pay to their operatives, are by no means inconsiderable. A proper establishment for a veterinary surgeon, consisting of a forge and stables, including also the wages of his operatives, will, upon a very moderate calculation, independent of his household expenses, amount to not less than from £150 to £200 per annum. The present prices of horse shoeing are by far too low, and credit is too much insisted upon; if however the majority of the public must have credit, I think it would be advisable to have

both a cash price and a credit price. This system I have tried, and it answered my expectation quite to my satisfaction. The prices I charged were however too low; so that I lost considerably by it. Indeed were it not for other advantages which the profession holds out, such as the treatment of diseases, &c. the shoeing of horses would not be worth attending to. But the two departments are so intimately connected as to render a separation of them troublesome and inconvenient.

THERE is one branch of the veterinary profession which requires to be established upon a better foundation, than it has hitherto been, *viz.*—the manner in which veterinary surgeons are treated, when called on to attend the law courts in a professional capacity; and I cannot here resist the temptation of making some remarks on that subject. It certainly must be admitted that the regulations of our law courts, in regard to rewarding particular witnesses, are very deficient. Veterinary surgeons are frequently called upon,



(and perhaps detained a whole day,) to give their opinions in disputed cases, respecting the unsoundness of horses, for which they are allowed only the fees of common witnesses. If, like the latter, they came there only to relate what they had seen or heard, and if their evidence was only such as what any person of ordinary parts might afford, then I would grant that they were entitled only to the common fee. But, if they appear in a professional capacity, if the expense required, and study which they have submitted to, in order to qualify themselves to give their opinion is taken into account, and if it is farther considered that their testimony must have more weight in the decision of such cases than any other evidence whatever, then, I think it must be granted, that they are as deserving of some reimbursement, as any other person attached to the court. It is on such principles, that an allowance is at present made to medical gentlemen; and I see no grounds why it should be refused to veterinary practitioners.

To obtain a perfect knowledge of the diseases to which our domestic animals are subject, and the proper method of treating them, requires a long and extensive experience, and an accuracy and acuteness of observation, with which few are gifted. For this purpose there is perhaps few things so useful as recording cases. It recalls facts which we could not otherwise recollect, and affords us an opportunity of comparing the various symptoms, and phenomena, which the same disease in different cases may display, thus leading us to a more perfect knowledge of the characters and treatment of each, than could be otherwise obtained. The plan which I would recommend is to keep a book of daily occurrences, in which every circumstance worth noticing in the course of each day should be marked down. This will undoubtedly be attended with a great deal of trouble; but, I believe, it will be found amply compensated by the advantages obtained. This method I have adopted throughout a practice of twenty-five years; and it is the facts I have thus obtained, and the conclusions I have drawn from

them, that I now consider it a duty incumbent on me to lay before the public. Thereby offering my mite towards the improvement of the veterinary science,

IN medical writings a strict adherence to truth is above all things required, and to this I have constantly adhered. There may, no doubt, be deficiencies in some parts of the work; yet it is trusted that the impartial reader will discover in it some things meriting his attention, and that considerable pains have been taken to render it worthy of his regard. If my labours shall be found to have been in the smallest degree serviceable to the public, I shall account my principal object obtained, and all the trouble I have had amply repaid.

IN arranging the work, the best plan that occurred to me, and that which I adopted as most interesting, was first to give a description, so far as my experience hath hitherto put it in my power, of every disease to which the animals

already mentioned are liable, so far as my experience hath hitherto put it in my power; to state the causes, symptoms and treatment, and illustrate the whole by cases which have occurred in my own practice, or such as have been furnished by correspondence or otherwise, describing the morbid appearances upon dissection, and making such observations upon each case as I think necessary or useful; and, lastly, to state such circumstances as I consider interesting to practitioners of human medicine or surgery. I shall commence with the most common disease, describing it as it occurs in the horse, and illustrating it, and the mode of treatment adopted, by means of cases, I shall then proceed to a description of the same disease as it occurs in cows, sheep, and dogs, so far as it may have come under my cognizance. I have thought proper to commence with the diseases of the organs of respiration: intending, should this meet with a favourable reception from the public, to treat next of the diseases of the abdominal viscera.



## OBSERVATIONS ON INFLAMMATION.

**I**NFLAMMATION is an affection with which every disease, that the animal frame is liable to, is more or less connected. In the acute and in the chronic, in those in which the danger is instant, as well as in those in which life is prolonged, through years of pain and misery, we have to contemplate it as the source of all the suffering, and as the most formidable enemy, that we have to encounter, in our attempts to preserve life and to eradicate disease.

IN commencing a work, therefore, which professes to be a system of veterinary medicine, it may be proper to premise some general

remarks on inflammation, to ascertain the symptoms which characterize it, and to establish the principles which are to regulate our practice. In so doing, I shall render the work more systematic and complete, and I trust also more generally useful,

INFLAMMATION may be defined—a morbid state of increased action in a part, attended with itching, local heat, redness and swelling.\* In the more severe cases, it is accompanied with symptomatic fever; the pulse is then strong and frequent, the natural heat of the body is increased, the stomach loaths food, the urine is scanty, and high coloured, and the bowels are generally costive. It is susceptible of various modifications. On them several divisions of it have been founded. Thus, it is said to be acute, when it runs its course rapidly, and comes to a speedy termination; and

---

\* The redness takes place in all inflammations, but, in general, it is not visible in the skin of quadrupeds owing to the hair.

to be chronic, when its progress is slow, so that even years may elapse before it terminates its career, either by the destruction of the patient, or on its removal by the resources of art. It has been further divided into healthy and unhealthy. We have an example of the first in the common phlegmonous tumour, and of the latter in glanders, canker, &c. It is further varied by the nature of the parts which it may attack; the pain being more intense in inflammation of hard and unyielding parts, like fascia, cartilage, or the hoof, than in that of muscular or glandular parts, which are soft and easily distended.

#### *Causes.*

THE most frequent causes of inflammation in quadrupeds, are blows, bruises, sprains, wounds, and the causes of fever in general, such as variations of temperature, cold, and long confinement in a close stable, with high feeding. Sometimes also it arises spontaneously, without any assignable cause.



*Terminations.*

THE terminations of inflammation, are various. It may, however, be stated as a general law, that it must terminate either in a secretion, or in the destruction and death of the part.

SOMETIMES it produces only an increase of the natural secretion of the part. Thus, catarrh is always succeeded by an increased discharge from the mucous membrane of the bronchi and nostrils. Thus, also in the slighter degrees of inflammation of the liver, as well as in the chronic cases, calomel uniformly produces relief, by increasing the secretion of bile.

WHEN it is a serous membrane like that which lines the cavities of the chest or belly, that has been affected, then the fluid which, in a state of health, is exhaled, to moisten the surfaces of these delicate parts, is increased in quantity—accumulating, sometimes, to such a degree as to give rise,

in the one case, to dropsy of the chest, and, in the other, to that of the belly.

It may, in like manner, terminate in a secretion of coagulable lymph. This is observable, in the resolution, as it is called, of an inflamed tumour, there remaining, long after the pain and redness have subsided, a hard and indolent swelling. This termination may also occur as a consequence to the inflammation of serous membranes; the intestines, after inflammation of the bowels, being glued to each other.

The next termination that I shall mention, is suppuration. Though it is not so favourable as those which we have already mentioned, still it deserves to be accounted a desirable termination. It occurs when the inflammatory symptoms, instead of yielding to the treatment employed, continue unabated, and the swelling, instead of subsiding, goes on increasing, becoming soft, and white at its most elevated part. If the collection be superficial, a fluctuation may be felt.

At this time, a fluid, called matter, or pus, is contained in a cavity situated in the centre of the inflamed part, forming what is termed an abscess. This peculiar fluid is, by some inexplicable process, separated from the blood by the secreting arteries, in the same manner as any other secretion. In a healthy state, it is an homogeneous light-yellow fluid, of the consistence of cream, and possessing little smell. Its appearance and properties may however vary under many circumstances of disease. The cyst, containing the pus, has a smooth and somewhat villous surface, being lined with a layer of coagulable lymph, and the surrounding cellular substance thickened and agglutinated by the inflammation, so as to prevent the matter from spreading. From the arteries of this part, the pus is secreted. The matter always makes its way towards the external surface of the body, being the direction where the least obstruction is met with.

GANGRENE and mortification ensue when the violence or duration of the inflammation has

completely exhausted the powers of the part. On this event, the pain suddenly subsides, the part shrinks, becomes cold, and the cuticle is elevated into a vesication filled with a turbid fluid; at last, during the putrefactive process, air is disengaged into the cellular substance, so as to cause, when pressed on, a crackling sensation. To this stage, the term gangrene has been applied. When the life of the part is completely destroyed, its sensation and heat extinct, and it separates readily from its neighbouring parts, then sphacelus, or mortification, is said to have taken place.

#### *Treatment of Inflammation.*

THE treatment of inflammation in quadrupeds is influenced by the importance of the parts affected, the severity of the symptoms, the effects produced, the consequences which we are led to apprehend, and the causes which have given rise to it. In inflammation of the vital parts, where the danger is great and immediate, our practice must be active, and our treatment such as will produce a rapid and instant check on

the inflammatory action. Copious bleeding is here our principal remedy. Where the symptoms are very severe, and the animal plethoric, it may be advantageously persevered in till the animal is near fainting, in other cases we are to be regulated by the state of the pulse, being satisfied by producing a marked change, on its quickness and strength. The bowels must be kept moderately open, by mashes of bran, by grass, or by some mild opening medicine, and pure air freely admitted. These, with frequently hand-rubbing the extremities, covering them with flannel, and applying comfortable clothing to the body, will all tend to abate the inflammatory symptoms. Exciting an inflammation on the skin, near the part originally affected, by means of cantharides, or any other external stimulant, or by an issue (commonly called a rowel) inserted opposite the affected part, will also be found to be good auxiliaries.

In cases of local inflammation, arising from external violence, hot fomentations of herbs, boiled

in water, or a warm solution of the acetite of lead, applied for an hour or two to the affected part, with folded cloths, once or twice daily, will be found very useful. If local bleeding cannot be conveniently employed then any superficial vein, near the part, may be opened, and allowed to bleed for a considerable time. Soft poultices will occasionally procure relief, where fomentations have been ineffectual. If inflammation is produced by pressure, or friction, nothing more is necessary than to remove the cause. In excoriations of parts, the application of hogs lard, or soft soap, is a very good remedy.

WHEN suppuration is found to be unavoidable, or it is thought proper to promote it, poultices made very soft, and frequently repeated, are in all cases, where they can be employed, the best application. Fomentations may be substituted where poultices cannot be applied. These applications must be persevered in till the fluctuation of matter is distinctly felt; when the abscess ought to be laid open, and the former

applications repeated till the parts begin to heal.

When mortification is expected to take place, the treatment must be directed to stop its progress. The topical applications should consist of fomentations of chamomile flowers and poppy heads, well boiled, and frequently applied. When the inflammatory symptoms have subsided, the part should be left entirely to nature. The constitution should at the same time be supported by every means. Bark, with aromatic powder, and a nourishing diet, are especially necessary. The former may be easily given to any animal in gruel. Mash of malt will answer best for horses, cows, or sheep; and good broth with oatmeal, and bread, toasted and grated into it, for dogs, will be the best food; and new milk, boiled, may be given, when cooled, for drink. In cases where there are much pain and general irritation, small doses of opium will be found very useful.

**CATARRH OR COLD,**





## CATARRH OR COLD.

**CATARRH** is a disease, from which animals, though exempt in a state of nature, are yet peculiarly liable to when domesticated. It may be defined, an inflammation of the lining membrane of the respiratory passages, attended with cough, and terminating in an increased secretion from the nose, the fauces, and the ramifications of the bronchi or windpipe.

### *Causes.*

THIS complaint is most prevalent during cold, windy, or wet weather. The causes that produce it, are often so trifling as to escape notice, or

scarcely to account for the consequences which follow.

THE principal causes of catarrh are

1st, Variation of temperature.

2d, An unusual degree of cold applied to the body, either suddenly, or gradually.

3d, Dampness.

THE first cause, viz. Variation of temperature, may produce it, by the animal, after a long exposure to a cold atmosphere; being placed in a warm apartment, where there is very little circulation of air; or by going suddenly from a warm apartment into the cold air, especially when exposed to very high winds.

THE second cause, viz. An unusual degree of cold applied to the body, either suddenly or gradually, may produce it.

1st, By the apartment in which animals are confined, having two doors placed opposite to

each other, so that a current of cold air passes through, when both are allowed to stand open at the same time.

2d, By exposure to a great degree of wet, as a heavy shower of rain, or passing through deep water.

3d, By the apartment being considerably decayed, so that the cold air is admitted constantly into it, or the rain passes through upon the animal.

THE third cause, *viz.* Dampness, may produce it, by the apartment, in which the animal is confined, being situated in a damp place, and little or no bedding allowed; or by the animal being obliged to remain out of doors during a succession of wet weather.

#### *Symptoms of Catarrh in Horses.*

THE symptoms of catarrh will be found to

vary according to the violence or intensity of the cause applied. In the more favourable cases, the first symptoms are generally a dulness in the appearance of the animal; he hangs his head down, is careless about taking his food. The inside of the nostrils becomes rather dry, and of a red colour, he sneezes a good deal, and a watery discharge takes place from the nose and eyes. If the inflammation extends to the tonsils and larynx, a slight cough is produced. In some cases, these symptoms are attended with soreness of the throat, which is evinced by some difficulty in swallowing food or water, and by the animal appearing to feel pain, when gentle pressure is made against the upper part of the throat.

If the patient has been subject to frequent attacks of catarrh, the inflammation will extend very readily to the larynx, or upper part of the windpipe, (which is lined with an exquisitely sensible membrane,) and even to the windpipe itself; producing sometimes a rattling noise in

the throat, quick breathing, a dry hard cough, increased heat of the mouth, fulness and hardness of the pulse, great discharge of thick mucus from the nostrils, loss of appetite, thirst, and costiveness. These symptoms are sometimes ushered in with shivering, continuing frequently till a discharge of matter, streaked with blood, comes from the nostrils. When this takes place, a remarked remission in the symptoms is observed—the appetite returns, and the patient appears to be doing well for a few days. On a sudden, however, an exacerbation of the disease comes on, and all the symptoms return with as great violence as ever.

SOMETIMES, the larynx, or upper part of the windpipe, becomes on a sudden so violently inflamed, that the animal is threatened with immediate suffocation.

IN other cases, the mouth only is affected, producing a swelling of the tongue, and an increased discharge of saliva.

IF catarrh is properly attended to at the commencement of the disease, which it always ought to be, it will scarcely ever occasion any trouble, and will rarely be attended with danger. In slight attacks, a few days rest in the stable, with moderate clothing, warm mashes of bran, and a little extra attention from a good groom, will be generally found sufficient. In most cases, a thin hood put upon the head, and flannel bandages applied round the legs will answer every purpose. Flannel bandages alone will do a great deal of good. Indeed I don't know a better remedy for a slight attack of catarrh, in the human subject, than lying in worsted stockings, for two or three nights.

IF, however, there is reason to suspect that the throat is sore, let it be rubbed, at the upper part of the windpipe, three or four times a day, with the following embrocation; then cover it with a small woollen hood; and give, once a day, half an ounce of nitre in powder, mixed in a mash,

or dissolved in a pailfull of cold boiled water, for his drink:—

## STIMULATING LINIMENT

Camphor, powdered, ..... 3 dr.

Olive oil ..... 3 oz.

Water of ammonia ..... 1 oz.

Dissolve the camphor in the oil, and add gradually the water of ammonia, shake it well up, and always rub it in till the part feels very warm.

THIS little additional attention, will generally prove successful, unless the patient may have been previously subject to frequent attacks of catarrh. The case then demands a more active practice, and is to be treated in the following way.

IF the breathing is quicker than natural, the cough hard, with a discharge of thick mucus from the nose, there is great reason to suspect that the inflammation is considerable, perhaps extending along the windpipe. It will then be necessary to take away two or three quarts of blood, and to apply the embrocation, three or



four times a day, along the whole length of the windpipe, till the skin becomes so sore that the animal will scarcely allow it to be applied, or till the symptoms of the disease are evidently abated.

A THIN hood should be put round the neck, the open part of which should be so contrived, as to tie above the mane. I mention a thin hood, because I consider the hoods which are generally used, produce too great heat, and are too heavy; and, of course, become troublesome and distressing to sick horses. If the horse should be costive, it will be proper to rake him, and give an injection composed of

Epsom salt ..... 4 oz.

Warm water ..... 2 quarts.

immediately after which may be given, from two to four ounces of sulphur, mixed with an English pint of cold water. Should he, at the same time, be rather feverish, and the mouth hot, half an ounce of nitre may be given along with the sulphur; or an ounce may be dissolved in a pailfull of boiled water, and when cooled given

to him for drink occasionally. This will be found to be as good a febrifuge as can be employed. Hand-rubbing the legs frequently should not be omitted; plenty of dry litter, and pure air cannot be too much attended to. If a considerable discharge of thick mucus, takes place from the nose, it ought to be encouraged, by applying some scalded bran, with a little vinegar in it, in a nose bag, tied upon the horse's head; the steams passing up the nostrils, will be found to produce an increased discharge, and to afford great relief to the animal. But it should not be applied too long, nor should it be too heavy, lest it fatigue the animal too much; ten minutes at a time is sufficient, repeating the application every two hours.

SHOULD the inflammatory symptoms be so violent as to produce a rattling noise in the throat, it will be better to blister the throat at the upper part of the windpipe, with the following ointment, than trust to the embrocation:—

## COMMON BLISTERING OINTMENT.

Cantharides, powdered, 1 oz.

Hogs lard ..... 3 oz.

Oil of origanum ..... 2 dr.

Mix these well together, and, after removing the hair from the throat about six inches in extent, rub in the ointment, till the part feels very hot. On the third day after the application of the blister, some warm hogs lard should be rubbed over it, which may be repeated every day till the scabs come off.\* Mashies of scalded bran will be the best food, unless grass can be procured, in which case, either of them may be offered occasionally.

It was formerly observed that the symptoms

---

\* In severe attacks of inflammation of the throat in the human subject, I think the blister is generally applied too extensively. It is customary to blister all across the throat from one ear to the other, thus blistering parts, where no disease exists, and giving a great deal of unnecessary pain. If the throat is blistered across the windpipe, and along its course about three inches in extent, every purpose will be answered with much less pain and distress to the patient.

last mentioned, are sometimes accompanied, at the commencement, with shivering, which continues occasionally, till a discharge of matter, streaked with blood, comes from the nose. This is a very peculiar species of catarrh, and has been termed the distemper among horses. It is, however, when properly and early treated, generally a safe disease and few horses are lost by it.

IN such cases, the same treatment as recommended in the preceding complaint, *viz.* bleeding, blistering the throat at the upper part of the windpipe, or applying the embrocation throughout its whole extent, opening the bowels with injections and sulphur, a few doses of nitre, warm clothing and pure air, along with the diet recommended, are the principal things to be attended to. When the exacerbation takes place, if the pulse is full and quick, copious bleeding will be found to give great relief. A rowel in the chest will also be very useful. I have, however, always found bleeding (repeating it if necessary) to be more depended upon than any thing else.

WHEN inflammation comes on suddenly upon the larynx, or upper part of the windpipe, threatening the animal with immediate suffocation, no time is to be lost in bleeding copiously, and taking away as much blood in a given time as possible. The best practice is to open both the jugular veins, and bleed till the pulse is lowered considerably. Afterwards rake the animal, and throw up an injection, composed of

Epsom salt ..... 4 oz.

Warm water ..... 2 quarts.

Then remove the hair from the throat, and apply the following

**BLISTERING OINTMENT.**

Cantharides, powdered, .... 1 oz.

Euphorbium, powdered, .... 10 or 15 grs.

Oil of origanum ..... 2 dr.

Hogs lard ..... 3 oz.

Mix well together, and on the second day after its application, put some hogs lard to it as formerly mentioned.

WHEN the mouth only is affected, producing an

enlargement of the tongue, with an increased discharge of saliva, the best practice, is to take away two or three quarts of blood, to foment well the lower jaw, at the fleshy part underneath, for about two hours, with a decoction of chamomile flowers; then, when the part is perfectly dry, to apply the common blistering ointment to it; and to wash the mouth out three or four times a day, with the following astringent lotion. If the animal is costive, rake him, and throw up a warm injection, composed of four ounces of Epsom salt, dissolved in two quarts of warm water, then give him from two to four ounces of sulphur, every twelve hours, to open the bowels. Should he be feverish, which may be suspected, from the severity of the symptoms, (but cannot be ascertained by the heat of the mouth, owing to its inflamed state,) half an ounce of nitre may be given with the sulphur; one or two doses of which will be found quite sufficient. The diet should consist of warm mashes of bran, scalded and well stoved, or hay seeds boiled, unless grass can be procured; and the best thing that can be

given for drink, will be a decoction of lintseed, made by boiling an ounce of lintseed, very gently for half an hour, in two gallons of water; then strain it, and add as much oatmeal as will make a moderately thin gruel, boil it well, and when it is sufficiently cooled, offer it frequently for drink.

ASTRINGENT LOTION.

Burnt alum ..... 1 dr.

Rose water ..... 2 oz.

Syrup of roses ..... 2 oz.

Sulphuric acid ..... 6 drops.

Dissolve the alum in the rose water and syrup, and stir in the acid till it is well mixed, put about a table spoonful into the animal's mouth every time it is used.

It may not be amiss to mention in this place, that, in most inflammatory diseases, we find animals are not disposed to take food of any kind, and the attendants are generally alarmed lest they should die from hunger. This, however, is a needless anxiety, as there is no danger of any animal dying from starvation, although he

should abstain from food for three or four days, or even longer.\* The fact is, that, during disease, the stomach loathes food; and the smell of it is as disgusting to a horse, as it is to any human being, when in such a situation. Even although a horse does refuse his mashes, and every other food that may be offered him, still we seldom find that he refuses his drink; in which case, it will generally be found an agreeable change to give him gruel instead of water. A decoction of barley, either raw or malted, will sometimes be found useful; but thin gruel, if the horse will take it, is certainly to be preferred, as it is more nourishing. Horses are generally shy in drinking warm fluids, especially if offered too warm, which is very commonly done. The most proper temperature is about the heat of river water in summer, which will be found to be both more

---

\* THE author has known, in a case of strangles, which will be specified in its proper place, a horse abstain from food for eight days.



agreeable to the palate, to be seldom refused, and also to do no injury to the animal.

IN all diseases affecting the organs of respiration, the patient should be as little disturbed as possible, as the least exertion is apt to bring on severe paroxysms of coughing. Therefore, instead of exercising him in the common way, it will be preferable to allow him to be at liberty in any outhouse, (the larger the better,) that can be spared for the purpose, where he may exercise himself, and enjoy the benefit of pure air, so particularly necessary to be attended to. Where such accommodation cannot be obtained, and the horse must remain in the stable, then every attention must be paid, that a sufficiency of pure air be admitted to him. His legs should be frequently hand-rubbed, and if they are very cold, should be wrapped up in woollen bandages. When the symptoms of the disease are evidently abated, it may be proper to lead him out in the open air, when the weather is dry, selecting the warmest part of the day for this purpose. But the

exercise should not be continued too long, nor should he be allowed to exceed a walking pace.

---

## CATARRH.

### CASE I.

MARCH 24th, 1810.—I saw a gentleman's horse that had got a cold from having been rode out in a stormy day. I found him dull and languid in his appearance, an increased discharge of thin mucus from the eyes and nose. He had a slight cough, and sneezed a good deal. He was sensible of pain, when pressure was made on the upper part of his throat, and upon offering him a drink of water, he appeared to have some difficulty in swallowing it. This convinced me that he had a sore throat, for which I prescribed the following

embrocation, to be rubbed upon the upper part, three times a-day, and directed flannel to be wrapped round his neck and legs. I also prescribed the following alterative powder, to be given every morning and evening, in a mash of bran, scalded and well stoved. I desired he might be fed chiefly with bran mashes, and have a liberal supply of cold boiled water for his drink. On the third day, I had him exercised gently for half an hour, and in the course of four or five days, he was perfectly well:

## STIMULATING LINIMENT.

Camphor, powdered, ..... 3 dr.

Olive oil ..... 3 oz.

Water of ammonia ..... 1 oz.

## ALTERATIVE POWDER.

Antimony, }  
Nitre        } of each in powder 2 dr.

Sulphur .....  $\frac{1}{2}$  oz.

---

---

## CATARRH.

### CASE II.

NOVEMBER 10th, 1807.—I was sent for to see a horse, a few miles in the country, that was supposed to have got a cold from changing his stable. When I arrived, I found him affected with the following symptoms:—a discharge of thick mucus from the nose, swelling of the parotid glands, and soreness of the throat, so that it was with difficulty he could swallow either food or drink. The respiration was quick, but not laborious, the legs and ears cold, the pulse moderate, probably from his having been copiously bled, previous to my seeing him, and the bowels somewhat costive. I immediately procured four ounces of sulphur, in the neighbourhood, which I mixed with water, and saw it given to him; and ordered his throat to be rubbed with the same stimulating liniment as

that mentioned in Case I. four times that day, and afterwards to be covered with flannel. For food, he was desired to have three times daily, if he could take it, a mash of bran scalded, with a decoction of lintseed, made by boiling gently for half an hour, half an ounce of lintseed in a gallon of water. For drink he was to have as much cold boiled water as he would take. The next day his bowels were quite open, and he was better in every respect; and, since that, went on gradually recovering, without any further trouble.

---

## CATARRH.

### CASE III.

AUGUST, 1799.—I saw a traveller's horse, which had got a severe cold, from having been rode a considerable distance during a rainy day. When I saw him he appeared very dull, refused his food, had a slight cough, and trembled a good deal; his pulse was not particularly affected, but his mouth was hot and dry. I ordered him to be

bled to the extent of two quarts, to have flannel bandages applied to his legs, and gave him half an ounce of nitre, dissolved in an English pint of water, to which were added two ounces of sulphur. Grass was to be offered to him occasionally for food. On the following morning, he was better, and eat a few mashies of bran; but, at night, he had a rattling in his throat, as if he was threatened with suffocation. This led me to suspect that the disease called strangles was coming on. I therefore ordered a poultice of scalded bran to be applied to the throat. On the following day, he was considerably worse; and, as there was not any particular enlargement of the glands, I considered the mucous membrane, lining the upper part of the windpipe, to be inflamed. I therefore ordered three quarts more of blood to be taken from the neck, the throat to be blistered at the upper part of the windpipe with the following ointment, and the sulphur and nitre to be repeated. Under this treatment the horse soon recovered.

## BLISTERING OINTMENT.

Cantharides, powdered, — ½ oz.

Oil of origanum }  
Oil of turpentine } of each 2 dr.

Hogs lard \_\_\_\_\_ 1½ oz.

---

## CATARRH.

## CASE IV.

JULY 23d, 1806.—I was recommended by a medical friend, to attend a gentleman's cart horse, which was suddenly seized with very alarming symptoms of suffocation. I found him affected with a violent inflammation of the upper part of the windpipe, making a rattling noise in his throat, labouring with great difficulty for breath, and costive. He had been bled before I saw him; but, as the pulse was still very full and hard, I ordered it to be repeated, and the blood to be taken from both sides of the neck till a tendency to faint would be brought on. I then ordered the hair to be removed from the upper part of the throat,

and the following blistering ointment to be rubbed in till the part felt very hot.

## BLISTERING OINTMENT.

Cantharides, powdered, — 1 oz.

Euphorbium, powdered, —  $\frac{1}{2}$  dr.

Oil of origanum ————— 2 dr.

Hogs lard ————— 3 oz.

My friend's servant promised to assist in doing this; and, having confidence in his attention, I took my leave, after having given the horse four ounces of sulphur, mixed with water. I saw him again about two hours after, and found him so ill that I did not think he could live long. As the last resource, therefore, I got a tin tube made, to put into the windpipe, intending to perform the operation of bronchotomy. This, however, the proprietor and all the attendants were prejudiced against. It was therefore postponed till evening; unless the animal, previous to that time, dropped down, or there should be no hopes of his recovery. He continued in this distressed state for an hour and a half longer; when, on visiting him again, I found him somewhat relieved, but very little,



On examining the blister, it had not produced the effect I expected; from the man, though he had taken great pains to rub the ointment well in, not having removed the hair. I got him persuaded to cut the hair off, in my presence, as well as he could; and I applied some more of the blistering ointment myself. The effect was soon discernable; for, in the space of half an hour, the horse was completely relieved from the difficulty of breathing, though he remained very weak and sickly. During the following night he was very ill, especially about four o'clock in the morning, when the sulphur began to open his bowels. After this he recovered fast, and in three days was fit for work. The original cause of this complaint was not ascertained.

---

## CATARRH.

### CASE V.

SEPTEMBER 26th, 1811.—I saw a gentleman's

cart horse, which had a violent inflammation in the inside of his mouth, and of his tongue, which latter was considerably swelled; the parotid glands were also somewhat enlarged. I took away two quarts of blood from the neck vein, and had the under or posterior part of the jaw, fomented well with the following fomentation, for an hour and a half. As soon as the hair was dry, I applied the following blistering ointment to the part. The inside of the mouth was washed with an astringent lotion, which I ordered to be repeated three or four times a day. The next day he was so well that I had no occasion to see him again.

## ASTRINGENT FOMENTATION.

Chamomile flowers ..... 4 oz.

Water, two gallons, to be boiled very gently for half an hour.

## COMMON BLISTERING OINTMENT.

Cantharides, powdered, .... ½ oz.

Hogs lard ..... 1½ oz.

Oil of origanum ..... 1 dr.

## ASTRINGENT LOTION.

Burnt alum, powdered, — 1 dr.

Syrup of roses }  
Rose water } of each - 2 oz.

Sulphuric acid ..... 4 drops.

N. B. THE cause of this complaint was supposed to be excessive wet weather, in which the horse was drawing manure from a distance.

---

## CATARRH.

## CASE VI.

AUGUST 21st, 1813.—A military gentleman wished my advice for a horse, which was unwell. I found him affected with a considerable discharge of saliva from his mouth, attended with a sucking noise, similar to what occurs in a case of locked jaw. He had also a great difficulty in swallowing any thing, and when he drank water, part of it returned through his nostrils, from

which there was also an increased discharge of thin mucus; the pulse was very little altered, but the mouth was very hot. I took away two quarts of blood from the neck vein, applied the following blister to the throat, and ordered him to be fed with grass and bran mash. On the following morning the symptoms were all abated, and a quantity of matter was discharged from the nostrils, similar to the contents of an abscess. He still continued, for some time, to return water through his nose when drinking. He, however, at length recovered without any further trouble.

## BLISTERING OINTMENT.

Cantharides, powdered, ....  $\frac{1}{2}$  oz.

Camphor, powdered, .....  $\frac{1}{2}$  dr.

Hogs lard .....  $1\frac{1}{2}$  oz.

This case appears to have been a slight cold, (the cause of which could not be ascertained,) and the inflammation seems to have settled upon some small gland, at the upper part of the throat, where an abscess was the consequence, which, when it burst, relieved the animal.

**CATARRH.****CASE VII.**

MARCH 16th, 1817.—I was requested by a gentleman to go into the country to see a mare, which was ill with a cold. She had been bled on the 13th, but nothing more had been done. I found the glands of the throat enlarged, and the throat itself sore when touched. There was some difficulty in breathing, the appetite was deficient, and the discharge of mucus from the nose was a little increased. I thought a blister applied to the throat would remove the complaint. I applied it myself, and afterwards bandaged the legs with flannel. On the next day, I learned that she was much better. On the 18th, I was informed that she was worse, and was requested to go out and see her. I found all her former symptoms greatly aggravated; and, being afraid of the inflammation

extending to the lungs, I bled her till she began to faint. I then removed the hair from the course of the windpipe, and blistered it throughout its whole extent; I also put a rowel in the chest, and ordered a small quantity of nitre to be dissolved in cold boiled water to be given for her drink, and mashes of bran and sliced potatoes for her food. On the 20th, she was a great deal better, but very weak and coughed a good deal. I ordered half an ounce of lintseed to be boiled, in a gallon of water, gently for half an hour; and as much bran as was sufficient to make a mash, to be scalded with this decoction, of which she was to get a small portion every hour; and one of the following cordial balls, every morning and evening. Under this treatment, with the good attention of the groom, and the use of gentle exercise, she rapidly recovered.

## CORDIAL BALL.

Yellow Peruvian bark, in powder, 2 oz.

Aromatic powder ————— ½ oz.

Treacle sufficient to make a mass to be divided into six balls.

N. B. This complaint was produced by hunting in wet weather.

---

## CATARRH.

### CASE VIII.

MARCH 27th, 1817.—A gentleman in the country sent to inform me, that one of his cart horses had bled very much from his mouth and nose, the day before; and requested I would send a dose of physic for him, if I thought it proper: with this I accordingly complied. On the 29th, I was desired to go out and see him; I found him affected with a considerable discharge of thick mucus from the nose, a hard suffocating kind of cough, the parotid glands enlarged, the throat sore to the touch, the appearance dull, and the appetite deficient. Although the physic had begun to operate, I bled to the extent of three quarts, and blistered his throat with the common blistering ointment. I ordered meshes

of bran, scalded with a decoction of lintseed (as mentioned in Case VII.) for his food; and a little nitre dissolved in cold boiled water for his drink, and requested he might be well groomed, and covered with warm clothes.

ON the 31st, I saw him again, and found him rather better. I sent out a few of the following alterative powders, one to be given every morning and evening in a mash. I found an erysipelatous inflammation had taken place in the inner side of the near thigh; and grease in the pastern of the off hind leg. I sent the following embrocation, to be rubbed upon the thigh twice a-day; and the following astringent powder, to be applied to the pastern once a-day.

## ALTERATIVE POWDER.

Nitre	} of each, in powder, 2 dr.	
Antimony		
Sulphur	_____	$\frac{1}{2}$ oz.

## EMBROCATION.

Camphorated oil	_____	2 oz.
Water of ammonia	_____	$\frac{1}{2}$ oz.



## ASTRINGENT POWDER.

Burnt alum, in powder.

Wheat flour, of each, equal parts, mixed together.

I saw him again on the 2d of April. He was very weak, and not breathing well, for which I put a rowel in the chest. On the 5th, I found him still very weak, and coughing a good deal. I observed that the discharge of thick mucus from his nose still continued; and was informed, by some of the servants, it had existed six weeks or more. I ordered the lintseed to be continued, and sent a few of the following cordial balls, one to be given every morning and evening. On the 7th and 12th, I found him better, but still very weak. On the 19th, the bleeding recurred again, for which I thought proper to take away above four quarts of blood from the neck, and repeat the blister, applying it to each side of the chest. On the 23d, he was so much better, that I ordered him to be turned into a grass park for two or three hours every day, if the weather was suitable. On the 28th, he was a great deal better;

and, as the weather was favourable, I allowed him to remain out the whole day. On the 30th, he was sent into Glasgow for me to see him, when I found him fully as well as I could expect. He was afterwards turned out every day; but, having from carelessness been allowed to be out in wet weather, a relapse was the consequence, and he died. I was requested to see him opened, and found a very extensive inflammation of the whole contents of the chest; the substance of the lungs was very much inflamed; the centre of the right lung had become mortified about four inches in extent; the inside of the windpipe, from the top to the bottom, and even the heart itself, had become considerably inflamed.

*Observations upon Case VIII.*

THIS appears to have been a neglected case of eararrh, which had existed a considerable time before I was called in. No notice of it however had been taken by the man who had the charge of the horse. Indeed, during my attendance he

appeared to be so indifferent about him, that I could scarcely depend upon my orders being obeyed. This proves my observations, on the negligence of servants, to be not unworthy the attention of masters.

---

## CATARRH.

### CASE IX.

FEBRUARY 23d, 1819.—I was requested to see a post horse, belonging to an innkeeper, which had a bad cold. I found him excessively dull, and scarcely able to move; the pulse was hard and full, and about 90; the respiration laborious, and the appetite defective; the parotid glands were enlarged, and there was a considerable discharge of thick mucus from the nostrils. He trembled a good deal, had a dry hard cough, and his legs were very cold. I took away four quarts of blood, and ordered the throat to be rubbed from the top to the bottom of the windpipe,

three times that day, with the camphorated liniment, his legs to be wrapped in flannel bandages, and a hood put round the neck. I then raked him, and threw up an injection, composed of Epsom salt four ounces, dissolved in two quarts of warm water; and gave, by the mouth, four ounces of sulphur, mixed with water, in which was dissolved half an ounce of nitre. Next day, he appeared somewhat better, the pulse was reduced to 60, his bowels were open, and the breathing easier. The cough, however, was still very troublesome, and the appetite deficient. As he had great thirst, he was allowed to drink freely of thin gruel, with lintseed boiled in it. His throat was also rubbed again three times that day; and, in addition, his nostrils were stoved with scalded bran and vinegar, which made him sneeze a good deal, and caused a considerable discharge of thick mucus from the part. He still continued to tremble frequently. On the third day, he was much better, could eat some hay, and sliced potatoes. He now discharged from the nostrils a quantity of purulent matter, similar to

the contents of an abscess. He was, that day, led out gently for a quarter of an hour. He continued to do well, till the 1st of March, when the groom informed me he thought he was a great deal worse, and that he had again lost his appetite. On examining him, I found that all his former symptoms had returned, so that he appeared to be nearly as ill as when I first saw him. I had therefore recourse to my former practice, and took away two quarts of blood, blistered his throat at the upper part of the windpipe, and ordered the gruel and the lintseed to be repeated. Towards night I gave him the following

## PECTORAL BALL.

Liquorice powder .....  $\frac{1}{2}$  oz.

Opium, in powder ..... 10 gr.

Oil of aniseed ..... 6 drops.

Treacle sufficient to make the ball.

THE next day he was no better; and I now observed that a swelling had commenced underneath the chest, and on examination I could hear a fluctuation of water within. Being satisfied that the disease had terminated in dropsy of

that cavity, I immediately had resource to some means for strengthening the system. For this purpose, I gave him half an ounce of the compound tincture of gentian, in a small quantity of water, ordered some mashes of malt for his diet, and gave him one of the following cordial balls twice a day. Towards the evening he eat pretty heartily of hay and the mash, and drank freely of the gruel. His cough was, however, very troublesome. Next day he was much better; but the swelling was considerably increased, extending along the belly. I had him exercised gently for twenty minutes, but this seemed to fatigue him. I had him well rubbed down, made him as comfortable as we could, and gave him a small feed of dry oats. The next day he was much better, the swelling was nearly away from the chest, and had gone down both the hind legs; for this he was well hand-rubbed and exercised every day. This, together with the cordial balls, effected a cure in a few days.

## CORDIAL BALL.

Yellow Peruvian bark, in powder 2 oz.

Aromatic powder ..... 3 dr.

Oil of aniseed ..... 10 drops.

Treacle sufficient to make a mass, to be  
divided into six balls.

### OBSERVATIONS UPON CATARRH IN COWS.

**I**T was formerly observed that the most common causes of catarrh, are variations of temperature, and exposure to a great degree of cold and dampness. From so little attention being paid to the comforts of these animals, we cannot be surprised that the disease in question should be very common among them. Indeed, there is scarcely a byre that one can enter, without observing some of the cows coughing. Now, the causes of catarrh, being such as we have already mentioned, and, since all the cattle belonging to one farmer are treated exactly alike, and consequently equally exposed to the same causes, it cannot be difficult to account for



the circumstance of the whole stock of cattle on one farm, being, at the same time, taken ill with the same disease, and that without supposing the presence of any infection whatever. This appears to me to be the only way in which we can account for the relations we have of numbers of these animals being attacked with the same disease at one time—a disease which no person could properly account for, and which was so generally fatal as not only to excite the attention of some of the most eminent medical gentlemen, but even to call for the interference of the legislature. This endemic (if we may be allowed the expression) has received several names, *viz.*—THE MURRAIN, GARGLE, PESTILENTIAL FEVER, &c. But it is now well known to be catarrh or inflammation of some of the respiratory passages, a disease which, if taken in due time and properly attended to, is by no means difficult to cure.

---

## CATARRH IN A COW.

### CASE I.

AUGUST 15th, 1807.—A farmer shewed me a cow which he said had been unwell for several days, and did not eat her food as usual. On examination, I found that she had a considerable discharge of thin mucus from the nostrils. She sneezed and coughed a good deal, and, upon offering her a drink of water, I observed that she had some difficulty in swallowing it. The parotid gland of the near side was rather enlarged; and, having got a person to hold her mouth open, her tongue being pulled aside, I observed that the tonsils were a little inflamed, the inside of her mouth was rather warmer than natural, and she appeared to be very dull. I advised the man to give her immediately two ounces of sulphur, with two drachms of nitre in water, and to rub her throat

well three times that day, and four times the next, with the following embrocation. By the use of these means she speedily got well.

STIMULATING EMBROCATION.

Rectified spirit of wine	} equal parts of each
Water of ammonia	

---

## CATARRH IN A COW.

### CASE II.

JUNE 26th, 1809.—I went with a gentleman to a grass park to see a cow that was unwell. I had been informed that she could not eat any grass, and was not able to stand. Accordingly, I found her lying on the ground; she breathed with considerable difficulty, the parotid glands were very much enlarged, and her throat was sore to the touch. I made her rise up, but she immediately lay down again. She was ordered to be taken

home, and her throat was to be rubbed, three times that day and the next, with the following embrocation, and covered with flannel. I gave her, immediately after she came home, four ounces of sulphur, mixed with water, and, on the following morning and evening two ounces more, which procured a pretty copious discharge from the bowels. After this she recovered without any further trouble.

## EMBROCATION.

Camphor oil ..... 4 oz.

Water of ammonia ..... 1 oz.

I HAVE seen several other cases of this disease among cows, but as, there was little or no variety in their symptoms, I thought two cases would be quite sufficient to point out the characters of the complaint and the treatment proper for its removal.

## OBSERVATIONS UPON THE DISEASES OF SHEEP.

**T**HE diseases to which these animals are subject are reported by most authors to be very numerous. If such really is the case, we can only regret it, since it is almost impossible to prevent their occurrence, or even to discover a sickly animal among sheep, in the very extensive pastures, over which they are commonly permitted to range, before the disorder has made so much progress as to render every attempt to remove it quite unavailing.

WITH regard to catarrh in sheep, no particular account of it, so far as I can learn, has yet been

given by any author who has written upon their diseases; but that this disease does take place, and that the symptoms are precisely the same as in other quadrupeds, there cannot be the smallest doubt. One of the first symptoms that I would expect to observe in a sheep, would be either sneezing or coughing; whenever therefore either of them is observed, the animal should be separated from his companions for a short time, and carefully watched. If he is affected with catarrh, the symptoms will soon declare themselves; the sneezing or coughing will become frequent, the animal will appear dull; the glands about the throat will be found, on examination, to be enlarged, which may be ascertained by comparing them with those of healthy sheep. If the throat is sore, it may be easily discovered by opening the animal's mouth and pulling the tongue to one side, when the tonsils will appear very red and inflamed. Having ascertained the existence of the disease by these symptoms, the cure is easily effected by rubbing the throat with a stimulating embrocation three or four times a day, by confining the animal

in a dry house for two or three days, and by giving a dessert spoonful of sulphur to open its bowels.

I HAVE no doubt but that catarrh might be easily discovered upon small farms. But even in such situations, owing to carelessness, the complaint is generally allowed to continue unnoticed till it terminates in a more violent and dangerous disease, *viz.* inflammation of the lungs. When this takes place such symptoms are soon produced as to alarm the attendants, and the disease (which is almost invariably the case with sheep) rapidly proves fatal;\* from nothing being attempted to check its progress till it is too late to interfere. The lungs, on inspection, are generally found black from mortification, which gives rise to the popular opinion that the animal has died rotten. Indeed I have heard some remark

---

\* This is exactly similar to the circumstances which occurred in inflammation of the lungs in horses, Case II. and locked jaw, Case XI which were both neglected cases of catarrh.

that it was a very common occurrence for sheep to be found dead when nothing was previously supposed to have been amiss. In such cases, the attendants finding, upon opening them, the appearances which I have described, have concluded that the animal had died rotten.



## OBSERVATIONS UPON THE DISEASES OF DOGS.

**F**ROM the amusement, utility, and personal safety afforded to mankind, by the different species of these animals, gratitude prompts us to attend to their comforts, to endeavour to preserve them in health, and to assist them by all the means in our power, when attacked by disease. When these animals are kept clean and dry, are properly fed, and regularly exercised, we seldom find them afflicted with diseases; but, if, on the contrary, their comforts are neglected, or their treatment mismanaged, we as certainly find them subject to a variety of disorders, some of which are with difficulty got the better of, and

others are attended with the most dangerous and fatal consequences.

CATARRH appears to be the most common disease with which dogs are afflicted, and I have every reason to suppose it to be the same, that is known by the more popular appellation of the distemper. There is an uncertainty and confusion in the descriptions which some authors have given us of this distemper. They describe it at one time as a simple catarrh; at another as a complicated disease, *sui generis*. I believe catarrh to be the true distemper; the other symptoms I apprehend are produced by some morbid affection of the organs of digestion, which will be explained in its proper place. These animals are often imprudently placed in situations, where they are exposed to the causes of catarrh. The kennels and out-houses in which they reside are frequently both damp and cold, their bedding is grossly neglected, and they are not unfrequently forced to remain for hours out of doors in a rainy day. It therefore cannot be

wondered at that catarrh is a common complaint among them. There is no doubt that many of these valuable animals die of this simple disease, for want of proper care at the commencement. Although they are observed to sneeze or cough, little or no attention is paid to them, and the disease is frequently allowed to have its own course, which not uncommonly terminates in inflammation, and mortification of the lungs. Numerous instances occur of inattention to the diet of these animals. They are commonly deprived of their mother's care at a tender age, and, although for about two or three weeks they may be attended to with tolerable punctuality, the attendants soon become tired, and neglect them altogether. They are allowed to procure from improper places, the greater part of their food, which must necessarily be dirty and unwholesome, and if they receive any at all at home, it will most probably be such as is improper. In fact, all charge of them is given up, they have no parent to protect them, no comfortable place is provided for them to lie in, and they are

permitted to go astray in all sorts of weather. We can, therefore, hardly expect these animals to remain long in a healthy state.

---

## CATARRH IN A DOG.

### CASE I.

**J**ULY 14th, 1807.—A gentleman brought to me a setter which was unwell, for my advice. The principal symptom of his indisposition was crying out every now and then, as if he had been hurt; he also refused his food, and was costive. I observed there was a great discharge of thick mucus from his eyes; which, together with the pain he appeared to feel, made me suspect his complaint was a cold, attended with a sore throat. This, upon further examination, proved to be the case; for the glands about the throat were all more or less enlarged, the throat was sore to the touch, and, on looking into his

mouth, the tonsils were observed to be very red and inflamed. I had his throat rubbed four times that day, with water of ammonia, and ordered a dessert spoonful of sulphur to be mixed in some porridge, which he took very readily. The next day he was much better. The water of ammonia was repeated for two days, and on the third day he was quite well.

---

## CATARRH IN DOGS.

### CASES II. AND III.

NOVEMBER 11th, 1808.—A gentleman sent for me to see two greyhounds, which he thought were affected with the distemper. I found their throats sore to the touch, and the parotid glands a little swelled; their breathing was considerably obstructed, their eyes discharged a large quantity of thick mucus, they both sneezed a good deal, they were also costive, and their appetite defective. I prevailed on the gentleman to send them

to my infirmary, where I gave a laxative ball to each of them, and rubbed their throats with the following embrocation twice a-day. The balls opened their bowels quite sufficiently; and, by attending to regular exercise, soft food, and keeping them clean and dry, they recovered in a few days, and continued well after they were sent home.

## LAXATIVE BALL.

Magnesia ..... 2 dr.

Fresh butter sufficient to make a ball.

## STIMULATING EMBROCATION.

Camphorated oil ..... 2 oz.

Water of ammonia .....  $\frac{1}{2}$  oz.



## INFLAMMATION OF THE LUNGS IN HORSES.

**T**HIS is a disease of ~~very common occurrence~~ among horses. It is of the most formidable nature, not ~~unfrequently terminating~~ in death. Even when we have been so far successful, as to preserve the life of the animal, it is not always that he escapes some of those disagreeable consequences, that render him unsound for life.

It may be defined an inflammation of the lungs, attended with cough, difficult respiration, and inflammatory fever; terminating, either in an increased secretion from the bronchi or air cells, or from the pleura or lining membrane of the chest; or in suppuration and abscess; or lastly, in gangrene.



*Causes.*

THE principal causes of inflammation of the lungs are,

- 1st, Catarrh neglected or improperly treated.
- 2d, Over exertion.
- 3d, Suppressed perspiration.
- 4th, Wounds of the chest or lungs.
- 5th, Stimulating effluvia.

*Symptoms.*

INFLAMMATION of the lungs generally commences with a feeling of lassitude. The animal is excessively dull in his appearance, his respiration is laborious, he is troubled with a suffocating cough. To these symptoms are added heat, and parched state of the mouth, hot breath, coldness of the legs and ears, and costiveness. The pulse is sometimes full and hard; at other times it is so feeble and languid as scarcely to be ascertained. There are also occasionally partial sweats,

and a spasmodic affection of the muscles of the face and neck, the jaws being partially closed so as to resemble locked jaw. It has also been correctly observed, by all late authors on this subject, that the horse seldom or never lies down.

### *Treatment.*

IN inflammation of the lungs, the remedy on which the greatest dependence can be placed, is bleeding. When, therefore, we are called into an animal labouring under this disease, it is the first step we should take. In the use of it, however, while we avoid, on the one hand, any useless waste of the vital fluid, we ought also, on the other, to employ it not with a sparing hand, but allowing the blood to flow, till either a marked remission takes place in the symptoms, or some sensible effect is produced.

THIS is to be succeeded by a mixture, composed of from two to four ounces of sulphur, and half an ounce of nitre, mixed in an English pint of cold water. The animal is then to be raked, and

a warm injection, composed of four ounces of Epsom salt, dissolved in two quarts of water, is to be thrown up. The animal being comfortably clothed, and his legs all wrapped in flannel, is to be allowed to remain quiet, in as pure air as can be got for an hour, at the end of which time he is to be examined again. If you find his pulse quick and weak, and the respiration not quite so laborious, then hopes of his recovery may be entertained. In this case, little or nothing more will be required but attention to his diet, clothing, and air. His diet should consist chiefly of good thick gruel, with a small quantity of lintseed boiled in it, or of mashes of bran scalded with a thin decoction of lintseed, or a few sliced carrots or potatoes in the raw state, or even a little sweet hay may be offered occasionally, unless grass can be procured. Should, however, the fever increase and the respiration continue as laborious as ever, external stimulating applications must immediately be had recourse to. The hair being removed from each side of the chest, to the extent of six or eight inches square, the part

should be blistered with the common blistering ointment, care being taken that it is well rubbed in. A rowel may be inserted under the chest, or the chest may be blistered underneath, as well as on each side; but, as blistering does not always succeed as a remedy, and if done too extensively, is apt to be attended with some unpleasant consequences, I prefer blistering each side, and inserting a rowel below the chest. This practice I have found to answer well, if done properly. The injection must be repeated occasionally, but not too often, as it disturbs the animal considerably. Should the first injection operate, it will be unnecessary to repeat it for twelve hours, when it may be administered again; repeating at the same time, and as often afterwards as may be thought necessary, the sulphur and nitre. I generally find the sulphur, thus repeated every twelve hours, succeed so well in opening the bowels, that, in most cases, I have seldom occasion to give more than one or two injections. Where the costiveness, however, is obstinate, it will be necessary to repeat the injections more frequently.

I must confess I am rather surprised to find some recent authors at a loss to recommend a proper remedy, to be given by the mouth, for opening the bowels in this complaint in horses; but, from my own experience, I can confidently recommend sulphur, as a safe and effectual medicine. To very strong horses I generally give four ounces for the first dose, and have sometimes repeated it with advantage; and, in general, I find in riding horses, two ounces given for the first dose, and repeated every twelve hours, with the assistance of injections, succeed perfectly to my satisfaction.\* Should the pulse become hard and full, about six or eight hours after the first bleeding; and, especially if that which has been reserved has a very buffy appearance, the operation should be repeated. If the case is to terminate favourably, it will be found in

---

\* In the human subject purgatives are employed for inflammation of the lungs with manifest advantage; but in quadrupeds it is merely necessary to keep the bowels moderately open; pernicious consequences generally attending the administration of purgatives in these cases.

the course of fifteen or sixteen hours after the application of the blisters and the rowel, that the parts where they have been applied have begun to swell, that the respiration is relieved and less laborious, and that the animal is a little more lively, having generally recovered his appetite sufficiently, to take a little food, such as sliced potatoes or carrots, or grass if it can be procured. As the thirst is generally very great in this complaint, a little cold boiled water should frequently be offered. The food, of whatever it may consist, should be given sparingly. Nature is the best guide; which, in man, as well as in the brute creatures, commands, as it were, that, in most disorders, a strict regard be had not to overcharge the stomach. Such imprudent management, so far from assisting her, will, on the contrary, only hinder her efforts towards carrying off the disease.

We frequently find (I believe, always when bleeding has been carried to excess), this disease terminate in an effusion of water. In some cases

we may hear it fluctuating in the chest. When neglected, it may either suffocate the animal, or, finding its way to the external parts, and lodging underneath the skin, produce an enlargement under the chest and belly, and an oedematous or swelled state of the legs. Whenever this occurs, frequent hand-rubbing the legs will be found very useful, also one of the following cordial balls given every morning and evening, for about a week, and as much gentle exercise as the patient can bear without fatigue. At first, he should not be allowed to remain out for more than twenty minutes at a time, and it may be repeated every morning and evening. The period may be increased gradually as he recovers strength. A little hogs lard should be applied to the blisters, every day after the second day of their application, till the scabs come off. The rowel should be kept in for eight or ten days; after it is taken out, let the place be well bathed every day with warm water, till it heals up.

## CORDIAL BALL.

Common Peruvian bark, powdered,  $\frac{1}{2}$  oz.

Aromatic powder .....  $\frac{1}{2}$  dr.

Treacle sufficient to make a ball.

Should the bark purge the animal, as not unfrequently happens, it may be discontinued for a day, and then commenced again, giving only one dose daily.

WHERE these cannot be conveniently procured, a mixture composed of a new laid egg, mixed and beat up with a quart of new milk, boiled, and cooled, and a table-spoonful of honey dissolved in it, will be found a very good substitute, and may be given twice a-day. It may be proper to remark that the milk must be new, and must be boiled, otherwise it is apt to purge the animal.

In some cases where the appetite was very deficient, I have given a dessert spoonful of the following mixture twice a day with excellent effect. (*See Inflammation of the Lungs in Horses, Case XII.*)



## STOMACHIC MIXTURE.

Compound tincture of bark } equal parts mix-  
Compound tincture of gentian } ed together.

Two or three doses of this mixture will, in most cases, restore the tone of the stomach, and improve the appetite.

WITH regard to inflammation of the lungs produced by wounds of the chest, the author has not had any experience in that point.

THERE are symptoms of the most dangerous kind produced by the whole extent of the respiratory passages becoming inflamed, from the animal breathing the smoke of burned wood and hay. This may happen by the apartment in which it may have been confined, being accidentally set on fire. With regard to the treatment of these cases, the practitioner must act according to the severity or mildness of the symptoms. The whole extent of the windpipe, and its ramifications, it ought to be recollected, are in an highly inflamed state. It is evident, therefore, that the practice ought not

to be trifling. The first thing to be done, ought to be to remove the patient entirely out of the reach of the stimulating effluvia, and put him into a place where pure air is freely admitted. Two or three quarts of blood is then to be taken away. I would recommend a fomentation of hot water, with as much of the acetite of lead, dissolved in it, as will turn it white, to be next applied along the course of the windpipe, for at least an hour and a half; keeping it as hot as the horse will allow it, without scalding him. This being done, the hair, when dried, should be removed from the whole course of the windpipe, and the following blistering ointment applied, rubbing it in very gently, till the part feels hot. In cases where the inflammatory symptoms are not very severe, this plan will be found to succeed very well; but where there is reason to suspect that the lungs are considerably inflamed, it will be necessary, in addition to the above, to take away two quarts more of blood, about two or three hours after the first bleeding, and to remove the hair to the extent of six or eight

inches square, from each side of the chest, and rub in the following

BLISTERING OINTMENT.

Cantharides, powdered, ..... 1 oz.

Hogs lard ..... 3 oz.

Oil of origanum ..... 2 dr.

Mix well, and dress the blistered surface with some hogs lar, on the third day. If symptoms of strangury should take place, the blister may be fomented with warm water. In all cases, the bowels must be kept open, as formerly recommended. Soft, or green food, should be given for the animal's diet; and cold boiled water, with a little nitre dissolved in it, for drink. Frequent hand-rubbing the legs, and the proper attention of a careful and sober groom, will be found very advantageous.

---

## INFLAMMATION OF THE LUNGS IN HORSES.

### CASE I.

MARCH, 1800.—A gentleman, having occasion to go from Manchester to the Lancaster assizes, took his own carriage and horses all the way, performing the journey in one day; being a greater distance than they had ever gone before. They took two days to return home. On the morning after their arrival, one of them was found unwell. The groom conceived he had a bad cold, and had recourse to the favourite treatment among such people, *viz.* cordials and a hot stable. From not having access to wine, he was obliged to ask his mistress for a bottle to give the horse. This she very prudently refused, and went herself to see the animal. She found him

labouring with great difficulty for breath; and, concluding that he was dangerously ill, requested the commanding officer of my regiment to permit me to visit him, and consult with my friend, Mr. Couper, a respectable veterinary surgeon, in Manchester, respecting his case. When we arrived there, it was not without great opposition that we obtained admittance into the stable, from the coachman's anxiety to exclude the cold air; and, in this, I confess, he had perfectly succeeded, for we found the animal labouring for breath, confined in a hot and impure atmosphere, in which even an healthy animal could not have existed long without becoming diseased. On examination, we found the disease to be an inflammation of the lungs, accompanied with a severe fever. Owing to the manner in which the stable was constructed, a sufficiency of pure air could not be obtained for the animal. We were therefore obliged to put him into the coach house, where a proper quantity of straw had been put, and every thing else done that was considered necessary for his comfort. The coachman, I believe,

thought we were out of our senses, and he could not be convinced of the propriety of the change. In removing the animal, it required the assistance of several men to support him from the stable to the coach house. When he arrived there, a large quantity of blood was taken from him, and some cooling medicines were administered; and, in the short space of one hour, he was so much relieved, that even the coachman was convinced that our's was the best treatment. Mr. Couper attended the case afterwards, and the horse got well in a few days.

---

## INFLAMMATION

OF THE

LUNGS IN HORSES.

### CASE II.

DECEMBER 9th, 1806.—A gentleman, who had taken his hunting horses a considerable distance from home, for the purpose of enjoying the amusements of the field, when about to return,

sent some of them home under the care of one of his under servants, and kept his head groom with himself. When the horses arrived, one of them was affected with a severe cold. In consequence of the absence of the head groom, as well as of his master, nothing was done to relieve the animal, till the groom arrived (four days after). He bled the animal immediately, and gave him some doses of sulphur and nitre. About a week after, the proprietor himself came home, and sent for me. I found the horse with an excessively short and quick respiration, the nostrils very much dilated, a dejected countenance, a very languid pulse, a defective appetite, costiveness, and an oedematous swelling under the chest. I also learned, upon inquiry, that he did not lie down. I informed the gentleman that nature had already made her own cure, which I conceived to be either an effusion of water in the chest, or an abscess in the lungs. I ordered half an ounce of the yellow Peruvian bark, in powder, to be given twice a day, to support the horse's strength. On the following day, I found a very putrid smell.

exhaling from his breath; from this I was certain that a collection of matter had formed. I accordingly informed the proprietor that I did not expect the animal could survive it. The bark, however, was continued, being all we could do. When I arrived the day following, I was informed that he died during the night. I stopped to inspect him; and, on opening the chest, I suppose, at least four gallons of water, mixed with matter, was poured out. The pleura and mediastinum were one mass of matter, and the lungs were not above one fourth of their natural size.

---

## INFLAMMATION OF THE LUNGS IN HORSES.

### CASE III.

MARCH 28th, 1807.—I went about four miles into the country, to see a cart horse belonging to a farmer. On examination, I found him



affected with the usual symptoms of inflammation of the lungs, *viz.* trembling, laborious respiration, hard cough, great heat and dryness of the mouth, hot breath, costiveness, coldness of the legs and ears, a full and hard pulse, and loss of appetite. Nothing had been done except bleeding. This I repeated, taking away two quarts of blood, and blistered each side of the chest, to the extent of eight inches square, with the common blistering ointment. I then gave him four ounces of sulphur mixed with water, which was repeated at night; I desired his body might be kept moderately warm, with woollen clothes, and flannel bandages put upon his legs. He was ordered for food, sliced potatoes or carrots, with mashes of bran; and for drink, cold boiled water, with a little nitre dissolved in it. On the following morning, a servant came to inform me that the blister had not risen, that the sulphur had not operated, and that the horse was no better. I therefore sent out some stronger blistering ointment, and informed them I would see him about two o'clock. When I arrived, I

learned that the blistering ointment had been applied for the second time, about an hour before; and I was certain (although the attendants had been so ignorant as not to remark it), from the great swelling of the sides, that the former blisters had had their due effect. From the application of the second blister, I dreaded lest matter would form in the sides, *an accident which, owing to their inattention accordingly happened, and the horse was materially blemished.\** I also found him considerably relieved in all his symptoms. As the sulphur however had not operated, I raked him, and threw up an injection of warm water, which had the effect of promoting the operation of the sulphur. In short, from every appearance, I was enabled to pronounce the horse out of danger. As I was not pleased with his situation, I got him removed into a loose house, and ordered an ounce of sulphur, to be given twice a-day, for two or three days.

---

\* This naturally informs me that if I had scraped off the blistering ointment, and applied hog-lard to the surface, the suppuration might possibly have been prevented.

At the end of two days he was so weak, that I was under the necessity of giving the following cordial ball, twice a-day. After taking eight of these, his recovery went on rapidly, and he seemed to gain strength every day. I afterwards substituted for them half an ounce of nitre, to be given every day for six days. At the end of this time, the horse was perfectly recovered, and well in every respect, except the sides, and fit for work. The proprietor informed me that he had, that winter, lost three horses with the same complaint, and wished to know if I could ascertain the cause of the disease. I told him I suspected it was owing to the construction of his stable, which had two doors placed in the centre, opposite to each other, and these being both thrown open at the same time, and continued so, while the servants were cleaning out the stable, a current of very cold air was allowed to pass through and to chill the horses. Considering this might be the cause, he nailed up one of the doors, and I have never heard of his having a horse ill since.

## CORDIAL BALL.

Yellow Peruvian bark, in powder, 3 oz.

Aromatic powder .....  $\frac{1}{2}$  oz.

Treacle sufficient to make a mass, to be divided into eight balls.

---

## INFLAMMATION

OF THE

LUNGS IN HORSES.

## CASE IV.

October 24th, 1807.—A gentleman requested me to see a mare of his, which had never been well since he got her (about a week before). He informed me she lately had a bad cold, from which she never perfectly recovered. She did not eat her food as she ought to do, was costive, never laid down, seemed to be very dull at times, had a slight cough, and had fallen off very much. Her pulse was pretty regular, and her breathing

appeared natural. I sent the following alterative powder, to be given in a bran mash every morning and evening.

ALTERATIVE POWDER.

Sulphur \_\_\_\_\_ 1 oz.

Nitre                    }  
Antimony               } of each, in powder, 2 dr.

These were persevered in for 6 days, when her appetite became so bad, that we were obliged to desist. Finding her very weak, I gave her half an ounce of yellow Peruvian bark, in powder, and half a scruple of aromatic powder, mixed with a pint of cold boiled milk, twice a-day. I was now informed that she made a great deal of water. This had the effect of making her coat look better. November 4th.—As she was still costive, I gave some injections of Epsom salts, dissolved in hot water. This failing to have the desired effect, I gave her about ten ounces of castor oil, which operated very well; and she seemed after it somewhat better, and more lively, but still she made a considerable quantity of water. November 7th.—On examining her loins, I found she yielded to

pressure made upon them. Thinking there might be something amiss thereabouts, I rubbed them with mustard and hartshorn. No effect however was produced, and she died the next day. On opening her, I found the lungs in a state of mortification, but cannot account for the want of proper symptoms to discriminate the disease.\*

---

## INFLAMMATION

OF THE

LUNGS IN HORSES.

### CASE V.

MAY 24th, 1810.—A gentleman requested me to see a mare of his, which, he said, was ill with a cold. She was very dull, refused her food; the inside of her mouth was very hot, her throat was

---

\* If this mare had been bled and blistered, on each side of the chest, she might probably have recovered; but her symptoms deceived me so much, that I did not understand exactly what her complaint was; and, of course, it was not proper to try such practice.

sore to the touch, she had a very hard cough, quick, though not laborious, respiration, and trembled a good deal. As she had been bled previous to my seeing her, I satisfied myself with blistering the throat, and ordering two drachms of nitre, dissolved in water, to be given every four hours, till she had got four doses. When I saw her again the following morning, I thought she was rather worse; she was costive, the respiration very laborious, and the febrile symptoms very strong. I raked her, and threw up an injection of Epsom salt, dissolved in water, then gave her four ounces of sulphur, mixed with water, covered her legs with flannel, and blistered about six inches square on each side of the chest. I saw her again about 7 o'clock in the evening, when she was open in her bowels, and considerably improved in every respect. About 9 o'clock at night, the ostler came to inform me that she was so ill, that he thought she could not survive till I arrived at the stable. I accordingly set off immediately, and found her, on my arrival, in a state of copious perspiration, from the severe pain

she had endured, though she was at this time perfectly free from it. The proprietor of the livery stables informed me that she had both staled and dunged, since the ostler left her, and passed such a considerable quantity of urine, that probably the pain had been caused by its retention, for, since the discharge of it, she had appeared to be considerably relieved. I waited by her for half an hour, and no recurrence of the pain took place. I ordered the ostler to give her a mash of bran with a little common salt in it, which she eat with great avidity, and I left her as well as she was at 7 o'clock. On the following morning, I saw her again, and found her doing very well; and, as the cough and difficult respiration, were the two most troublesome symptoms, I put a rowel in the chest, and gave one of the following pectoral balls every four hours.

## PECTORAL BALL.

Liquorice powder ..... 1 oz.

Oil of aniseed ..... 2 drops.

Yolk of egg, sufficient to make the ball.

This relieved the cough a good deal, and, on the



day following, she was much better. I then ordered one of the following alterative powders to be given every morning and evening, in a mash.

ALTERATIVE POWDER.

Antimony } of each, in powder, 2 dr.  
Nitre }

Sulphur ..... ½ oz.

On the morning of the 28th, she was perfectly well, except a slight diarrhoea. I ordered dry corn to be given to her instead of mashes, and the powder to be discontinued till the purging stopped. I saw her again on the 29th; the purging had stopped during the night, and the mare was in good spirits. I ordered the powder to be repeated in the evening, and the mare to be exercised gently for a quarter of an hour, during the warmest part of the day. As she was so well, I did not conceive it would be necessary for me to see her again, till it would be proper to remove the rowel. On the 30th, however, the ostler came for me to see her again. She had been purging all night, and continued to do so, while

I was there. For this I gave her the following cordial ball, which had the effect of stopping the purging, but a profuse staling succeeded. I therefore ordered half a gallon of new milk boiled, to be given her twice a-day, when cooled, in lieu of water, which completely recovered her.

CORDIAL BALL.

Yellow Peruvian bark, in powder,  $\frac{1}{2}$  oz.

Opium, in powder, }  
Aromatic powder } of each, —  $\frac{1}{2}$  dr.

Treacle sufficient to make the ball.

---

## INFLAMMATION

OF THE

LUNGS IN HORSES.

### CASE VI.

JULY 13th, 1811.—I saw a mare, belonging to a traveller, which was suddenly taken ill; I was informed by the ostler, that she had been troubled with a slight cold for some time. I

found, however, that inflammation of the lungs had now taken place. The respiration was very laborious; the legs and ears cold; the mouth very hot; the pulse hard and full, and upwards of 90; and the animal had a heavy dull appearance. I bled her immediately, till I was sensible of a change of sensation from the pulse. I then raked her, and threw up an injection of Epsom salt, dissolved in water, and gave her four ounces of sulphur, and half an ounce of nitre, mixed in water. I wished to blister the chest, but was obliged to postpone it, owing to the absence of the proprietor. On the following morning, the pulse was 69, and she appeared much better, though her breathing was still considerably affected. The proprietor having returned, I again proposed blistering the chest, which he objected to, on account of the girths coming upon the part; I therefore inserted a rowel under the chest, out of the reach of the girths. On the 16th, her pulse was reduced to 55; the febrile symptoms were much abated; and she was so much improved, that I had her

exercised for half an hour. On the 17th, her cough being troublesome, I gave her the following

## PECTORAL BALL.

Liquorice powder..... 1 oz.

Oil of aniseed..... 6 drops.

Treacle sufficient to make a ball ;

and had her exercised gently for an hour. On the 18th, she was much better, and I gave her two more balls that day, substituting half an ounce of Peruvian bark in powder for the liquorice powder. Owing to the day being wet, she could not be exercised ; and, on the 19th, she appeared dull, and was rather feverish for want of it. As it was fair about the middle of this day, I had her exercised gently for an hour and a half ; and, on the following day, she was so well as to be able to proceed on her journey.

**INFLAMMATION**

OF THE

**LUNGS IN HORSES.****CASE VII.**

NOVEMBER 23d, 1811.—I was requested to see a carriage horse belonging to a gentleman, residing a short distance from Glasgow, which I was told had a bad cold. Previous to my arrival, he had been attended by a farrier who had bled him, and put a rowel in his chest, and another in his belly. Upon examination, I found the parotid glands very much enlarged, and the throat very sore to the touch; the respiration was very laborious, the inside of his mouth hot, the pulse weak and quick, and the animal himself so weak that I considered him in a dangerous state. However, as his bowels were open, I thought I had some chance of success. I took the rowels out, as the horse was too weak to produce a proper discharge of matter, and as

I knew they would do mischief if allowed to remain in. I attributed the weakness to the quantity of blood which had been taken away, which I understood was very considerable, but was not measured. I thought the febrile symptoms, and the difficulty of respiration, were the effects not only of the inflammation of the lungs, but also of the throat. The latter appeared to have escaped the observation of my predecessor, as he had not applied any thing for it. I therefore thought it prudent to blister it immediately, and indispensably necessary to give something to support the system, and to abate the febrile symptoms. For which purpose I gave the following ball twice a day :—

Yellow Peruvian bark, in powder,  $\frac{1}{2}$  oz.

Nitre, in powder, }  
Antimony, in powder, } of each 2 dr.

Treacle sufficient to make a ball.

This practice had the effect of alleviating all the symptoms, and the next day the horse was much better, but had a bad cough. I then added six drops of the oil of aniseed to each ball. I

continued to give these balls till the 27th, when a purging commenced, which I thought was produced by the bark; I was therefore obliged to give it up for the time. During the administration of the bark the horse did well; but, after it was withdrawn, on the purging taking place, he fell off amazingly. On the 28th, I gave him a drachm of aromatic powder, morning and evening, and the purging abated towards evening; but he lost his appetite. I repeated the aromatic powder every morning and evening in gruel; but could scarcely get him to take food of any description till the 30th, when I resolved to try the following

STOMACHIC TINCTURE.

Compound tincture of bark } equal parts of each  
————— of gentian } mixed together.

I ordered a dessert spoonful of this to be given twice a-day in a small quantity of water. Scarcely an hour after he had taken the first dose, he began to eat some hay, and on the next day he ate every thing that was offered him. I only allowed him to get two doses of it. After this, I ordered a quart

of cold boiled milk to be given him every morning and evening ; by these means, together with the good care and attention of the coachman, he gradually recovered his strength. But a critical abscess formed in the off thigh, and another, after this was healed, in the near thigh. These occupied my attention for a considerable time ; and, on the 24th of January following, I left off my attendance.

---

## INFLAMMATION

OF THE

LUNGS IN HORSES.

### CASE VIII.

NOVEMBER 1st, 1815.—I saw a horse at a livery stable which had been ill three days with an inflammation of the lungs and throat, for which he had been treated by the proprietor of the stable, who, perceiving the case becoming dangerous, wished to have my advice. I found the



animal so ill that I despaired of curing him. He had a very troublesome cough, and his throat was very sore, his respiration was very laborious, the pulse weak and quick, his mouth was not warmer than in an ordinary state of health, the legs and ears were very cold, and he appeared very dull and dispirited. He had been very copiously bled, and had two half-pints of castor oil given him, from which he was purging severely. This was all that had been done to relieve him. I therefore proceeded to blister his throat, at the upper part of the windpipe, put a rowel in his chest, and ordered him to be fed with bran scalded with a decoction of lintseed, and cold boiled water to be given for drink. The next day I found him so weak, that I was obliged to give him the following cordial ball, repeating it twice a-day, till the purging stopped :—

Yellow Peruvian bark, in powder, 2 dr.

Opium, in powder,..... 1 sc.

Aromatic confection..... 2 dr.

Treacle sufficient to form the ball.

He got four of these before the purging stopped, when, at the same time, he got rid of all the other symptoms, except the cough and the weakness. I, therefore, gave him the following cordial ball every morning and evening:—

Yellow Peruvian bark, in powder,  $\frac{1}{2}$  oz.

Aromatic powder..... 1 dr.

Opium, in powder,..... 6 gr.

Oil of aniseed..... 5 drops.

Treacle sufficient to make the ball.

He got six of these balls, which did him a great deal of good, and his appetite coming to be pretty fair, I left him to the charge of the stable-keeper. He was very weak for a long time, but at length perfectly recovered.

**INFLAMMATION**

OF THE

**LUNGS IN HORSES.****CASE IX.**

JANUARY 12th, 1822.—A gentleman requested me to visit one of his horses which had a bad cold. I was informed his breathing was difficult and laborious, that on the preceding evening this symptom had been so aggravated as to occasion profuse perspiration; but that he had experienced relief from bleeding, and was somewhat better this morning. I likewise learned that about five weeks before, he had fallen with a cart into a canal, for which he had been bled to prevent the bad consequences, which, it was suspected, might follow the accident; he never, however, shewed any symptom of indisposition at that time. I found him breathing very quick and somewhat laborious, with an occasional cough, the parotid gland on the near side of his throat considerably

enlarged, and the mucous discharge of both nostrils increased; his mouth was cool, his pulse small and weak, his legs and ears very cold, his appetite deficient, and his thirst great; he also frequently scraped the pavement with his fore feet, which, I was told, he had a custom of doing; and he sometimes lay down, apparently in great agony. His bowels were sufficiently open, but I could not learn whether he made water or not. On examining his sheath, I found it very foul, and ordered it to be cleaned. I blistered his throat immediately, covered it and his legs with flannel, and gave some nitre to be dissolved in his drink. I saw him again at five o'clock in the evening, and he appeared much relieved in all his symptoms, excepting the scraping. I was informed that he had passed a great deal of wind, but continued sufficiently open in his bowels. As the respiration was still unnatural, I inserted a rowel below the chest. The carter informed me he had not seen him make water during that day, nor could we perceive any moisture about his litter. Conceiving

that he might have received some injury about his loins, I applied considerable pressure there with my hands, but he did not yield to it. I was next led to suspect, from his scraping and passing so much wind, that there might be some irritation about the bowels. I, therefore, gave him two drachms of ginger; and half a drachm of opium in powder, in a gill of peppermint water; I raked him, and examined his bladder, which I found empty; I then threw up a very hot injection, composed of Epsom salt, four ounces, dissolved in half a gallon of water. The next day, I found him, to appearance, a great deal better; his appetite had returned, his breathing was less difficult, and he did not appear to feel so much pain; we could not, however, ascertain whether he made water or not. As he was apparently so much improved, I declined doing any thing for the time, till I would see him in the course of the evening. Accordingly, I called about five o'clock, and found him so much better that I expected he would shew scarcely any symptom of indisposition on the following day.

I, therefore, declined doing any thing farther, except repeating the injection, (which had procured him considerable relief on the former evening,) and took my leave. But, to my utter astonishment, the carter called about ten o'clock that night, to inform me that the horse was dying, and to request me to go and see him. I immediately complied, and found him in a moribund state. He expired about four o'clock in the morning.

THE next day, I went to see him opened, when the following appearances were observed. From the symptoms of the case, I was suspicious that a stone had formed in the bowels. Nothing of the kind, however, was found ; but the intestines were considerably inflamed in different parts. The kidney of the near side was a little inflamed. The kidney of the other side I did not, at the time, examine, from its being covered with the contents of the intestines. I, therefore, proceeded to examine the stomach, the liver and the spleen, all of which were more or less inflamed. On

opening the chest, I found marks of inflammation on the lungs also, but not in such a degree as I expected, or sufficient to account for the death of the animal. I then proceeded to clean away the dirt from the other kidney, which was so diseased that the assistants took it for coagulated blood, and were about to throw it away, but I insisted that it was the kidney. I, accordingly, cut it out for examination, and found only about the size of my thumb, in the centre of it, that was sound: the remainder was in a state of mortification, and so soft and black that it was more like coagulated blood than any thing else.

ALTHOUGH this disease undoubtedly originated from the injury which the horse received by falling into the canal, I, however, have every reason to believe that he also had, at the same time, a severe cold.

## INFLAMMATION OF THE RESPIRATORY PASSAGES IN HORSES.

### CASES I. II. III. AND IV.

JANUARY 10th, 1811.—About four o'clock, P.M. I saw nine horses which had received considerably injury, from respiring the stimulating effluvia of burned wood and hay, (a fire having taken place in the stable, during the preceding night,) there was only four of them that I considered dangerously ill. I shall therefore confine my narrative to the circumstances which occurred in these four cases. There was a black and a bay coloured gelding, and a grey and a bay coloured mare. I found them all breathing with great difficulty, and discharging a thin frothy fluid from their nostrils, which obstructed their respiration so much as almost to suffocate them. This induced me to presume that the whole of the respiratory passages were more or less inflamed.



They had all been copiously bled before I saw them. I therefore proceeded to rake them; then threw up injections of Epsom salt, dissolved in warm water, and gave each of them four ounces of sulphur, mixed with water. After this, I removed them out of the reach of the effluvia, into as large a stable as could be procured, and admitted *all the pure air I could* to them. The inflammatory symptoms ran highest in the black horse and the grey mare, their respiration being so laborious that I was very apprehensive they would not recover, and I was induced to blister their chests on each side. I also had the throats of the whole four rubbed well from the top to the bottom of the windpipe, with water of ammonia, twice that evening. The injections were also twice repeated. On the following morning, I had them all led out in the open air, for about an hour, which seemed to do them good. They all dunged and made their water freely, except the black horse, which seemed to be unable to evacuate completely the contents of his bladder. On examining them, after their return to the

stable, the respiration of the grey mare and the black horse was found to be still very laborious, and the throat of the bay horse was also evidently sore. I therefore removed the hair from the throats of these three, and blistered them with the common blistering ointment, from the top to the bottom of the windpipe. I then had all the four stoved with scalded bran and vinegar, put into a nose bag, and tied upon their heads for about ten minutes, which gave them great relief. The bay mare, in particular, was so much relieved by it that it was not found necessary to do any thing more to her than to stove her. It was therefore repeated to the whole of them, every two hours. Towards evening, the grey mare appeared worse, and was so costive that I was obliged to repeat both the injection and the sulphur. They were all very much troubled with a cough, for which I gave the following ball to each of them:—

Liquorice powder ..... 1 oz.

Oil of aniseed ..... 5 drops.

Treacle sufficient to make the ball.

As they did not seem inclined to take their usual food, I recommended bran mashies or gruel to be given them, and raw potatoes or carrots sliced. The potatoes were refused; but they ate very heartily of the carrots, as also mashies of bran. The next day, January 12th, I repeated the balls, and dressed the blisters with hogs lard. On the 13th and 14th, the balls were repeated twice to each of them. On the 15th, a considerable discharge of matter was observed between the black horse's thighs. On examination, I found he had been burned there, which accounted for his difficulty in staling. I cleaned the part well, and applied some hogs lard; and also put a rowel into his chest. The same day the grey mare was so very ill, that I was induced to rowel her likewise. On the 16th, I found her better, and gave her a pectoral ball. On the 17th, I found the windows of the stable had been closed during the night of the 16th, which rendered the air of the stable so impure that the horses respired with considerable difficulty. They were relieved by the windows being opened again. This day, I

gave each of them a dose of physic. On the 18th, to assist the operation of the medicine, they were all exercised, except the grey mare, which could not bear it. Her physic, however, operated very well; but her dung had a very offensive smell; and, at night, she appeared very dull, and refused her food. On the following morning, she was so weak that I thought her in a dangerous state. I saw her again, about 12 o'clock, when I took a cordial ball with me for her; but she was then too far gone for me to think of giving it. In this debilitated state, she continued till near 7 o'clock on the morning of the 20th, when she expired. The physic operated well upon the other horses, and was attended with much advantage. On the 19th, 20th and 21st, I gave the following cordial ball to each; and, as they seemed to be doing well, I declined doing any thing more to them, and they gradually recovered. The grey mare was very old, and had suffered a good deal from affections of the throat and lungs, previous to the above-mentioned occurrence. The others were fresh young horses.

## CORDIAL BALL.

Yellow Peruvian bark, in powder,  $\frac{1}{4}$  oz.

Aromatic powder.....  $\frac{1}{4}$  dr.

Oil of aniseed..... 5 drops.

Treacle sufficient to make the ball.

*Appearances upon Dissection.*

I WENT to the tanyard, and saw the grey mare opened. The following marks of disease were observed. The stomach and alimentary canal presented some few trifling marks of inflammation, entirely confined to the external coat of the stomach and intestines. The lungs were as black as coal throughout their whole substance, as was also the whole internal surface of the windpipe, and the lung of the near side was a great deal smaller than the other.

**ABSCESS**  
IN THE  
LUNGS OF A HORSE.

**CASE XI.**

NOVEMBER 13th, 1811.—A military gentleman, upon returning from his usual ride, as he dismounted in the barrack-yard, to his utter astonishment, the horse immediately fell down dead. The groom was to leave his place the next day. This, of course, excited a suspicion that he had poisoned the animal. The proprietor, therefore, resolved to have him opened, and requested my attendance. I found the left side of the chest very full of matter, and upon examination I found that a large abscess in the lungs had burst. There was a hard piece of coagulated lymph in the centre, which, I presume, had been acting as an extraneous substance, and caused so much irritation as to produce the abscess. I was informed that the horse had a bad cold about

twelve months before, and had been troubled with a cough ever since.\*

---

\* THIS case brings to my recollection, a circumstance which occurred to a child of my own, which had convulsive fits from the whooping cough. The first fit with which it was seized left it completely breathless; an alarm being given that the child was dead, I immediately attended to see what was wrong. I took the child into my arms, and, finding that the action of the lungs and the heart had both completely ceased, I closed its mouth, and blowing gently through its nostrils set the lungs in motion, and the child revived. The same circumstance occurred again during its illness, and was attended with the same fortunate result. The fits were very numerous, and continued more or less frequent from the 27th of March to the 17th of April, 1817. The child was twelve months old. I thought it proper to specify this particular case, with a view to make it public, as it is well known that a great number of children are lost every year by this complaint, whose lives might probably have been saved by the means that I employed. It was owing to the recommendation of the Royal Humane Society that I was led to employ the means mentioned in the above case.

TERMINATION OF THE DISEASES OF THE ORGANS  
OF RESPIRATION, PRODUCING UNSOUNDNESS IN  
HORSES, OR ATTENDED WITH FATAL CONSEQUENCES.

THE parts which are interested in an attack of catarrh, or inflammation of the lungs, are of such importance in the animal economy, that the slightest derangement in their structure must impair their functions, and consequently detract from the healthy condition of the animal. Although, therefore, a practitioner may be successful in overcoming the more urgent symptoms, he not unfrequently finds some unpleasant consequences remain, rendering the animal unsound for life, so as in some cases to be almost useless, and in others producing such effects as terminate in death. However, when such consequences follow, we can generally trace them to neglect, or improper treatment, at the commencement. For instance, it not unfrequently happens when a cart horse is attacked with a slight cold, for



the servant to take no notice of it, lest it should occasion any interruption in his work. The animal continues, therefore, to labour under his disease, till the symptoms become so severe that he is rendered altogether incapable of working. It is now discovered by the proprietor that his horse is so ill that the servant can scarcely get him out of the stable, and that he has not eat his food so well as usual for several days.

A PRACTITIONER is now called in, to treat what the attendants call a case of slight cold, of a week or perhaps a fortnight's standing. Something similar to the following will be the account given of his complaint:—He has been very dull, and not had his usual spirits, for some time; he has been coughing a good deal lately; he perspires readily, even with slight work; he seems to have lost all appetite, and does not eat his food so well as the other horses; has been observed to tremble a good deal; seldom lies down at night; his dung is harder than it used to be, and rather dry, his urine is very high coloured, and appears

to be very hot, by the steam which exhales from it.

ALTHOUGH the disease has existed for such a length of time, and got to a great height, the case, under an active and well directed treatment, will sometimes terminate favourably: though, in many instances, we are disappointed in our expectations, more especially if the animal be very fat and plethoric, or if any symptoms of locked jaw should have appeared.\* This points out the necessity of paying attention to colds, however slight the symptoms may be at their commencement. I am persuaded, if this was done, we should not hear of so many chronic affections of the lungs or other parts, which are troublesome and expensive in themselves, and frequently give rise to a groundless jealousy between masters and their servants; are a fertile source of litigation between purchasers of horses

---

\* See Locked Jaw, Case XI.

and horse dealers ; and have frequently afforded opportunities for an indelible stigma, to be attached to the profession, by the perjuries or blunders of persons improperly qualified to inspect horses.

IN a case of catarrh, where the inflammation has extended to the windpipe, if the means employed for its removal are not sufficiently powerful to eradicate the disease, or if they are too late in being applied, it is apt to terminate in a thickening of the mucous membrane, producing frequent coughing, and considerable obstruction in breathing. Mr. Richard Lawrence mentions an instance of this which terminated fatally.\* Or it may produce a deposition of coagulable lymph, in the windpipe, forming a complete division of it, as far as it extends. I have seen this division extend in some cases, from the top of the windpipe to the lungs ; in

---

\* See Lawrence's Inquiry into the Structure and Animal Economy of the Horse, page 122.

others I have seen it from three to six inches or more. This deposition of coagulable lymph, and thickening of the mucous membrane, which lines the windpipe, is supposed to be the cause of the animal making that peculiar sound in his breathing, when his action is accelerated, which is known by the name of roaring. Horses of this description, when they draw a heavy load, are very much oppressed in their breathing, and, even although they have but a small hill to ascend, they frequently fail in the attempt. They also cannot carry a weight upon their backs, at a quick pace, without danger of suffocation. They cannot, therefore, be considered as sound horses.

CASES of inflamed lungs are apt to terminate in suppuration, forming an abscess in the substance of the lungs or the neighbouring parts. (*See Inflammation of the Lungs in Horses, Case II.*) This, however, is not so common as an extravasation of blood, or an effusion of some of its component parts, as the coagulable lymph or serum. The coagul-

able lymph is sometimes deposited in considerable quantity in the ramifications of the bronchial vessels. Mr. White, in the 8th edition of his *Treatise on Veterinary Medicine*, page 394, mentions that he has heard of three cases where the animals were spontaneously relieved by coughing it up. Dr. Bracken, in his work on *Farriery Improved*, Vol. I. page 140, quotes a similar instance from De Gray.

He says, "De Gray tells a merry story of a horse cured of pursiveness, which is as follows : A certain groom (no doubt a wise one) who had a broken-winded horse under his care, kept him from drinking for two or three days, giving him all that time as much hay and other provender as he would eat ; then he leaped upon his back and rode him to water, where he suffered him to drink his fill ; then he clapped spurs to him, and galloped full speed, till the poor creature fell down for want of breath, and lay for some time as if he was dead. As soon as he recovered wind, the groom gave him more water, and galloped him a second time till he fell ; and so a third, (for no

number, I suppose, but an odd one would do with this groom). Well, when the horse had recovered his wind a little, he fell to coughing very much, and, by the violence of the shake, cast out of his windpipe and mouth a lump of congealed phlegmatic stuff of a good bigness, after which the gelding was free from the distemper."

It however, I believe, more frequently acts as an extraneous substance, exciting inflammation, and producing an abscess in the lungs, which generally proves fatal when it bursts. (*See Abscess in the Lungs, Case XI.*) It may also by its effects produce such constant and violent coughing as to rupture the air cells of the lungs, and bring on broken wind. An effusion of water in the chest is a more common termination of this disease. It frequently happens to be produced in such quantity as to suffocate the animal. Gangrene or mortification is also a very common termination, and never fails to be fatal.

**INFLAMMATION****OF THE  
LUNGS IN COWS.****CASE I.**

FEBRUARY 28th, 1807.—A gentleman requested me to see a cow, which he thought was dying. I found her labouring with great difficulty for breath; her mouth very hot; her bowels costive; she refused every species of food, and her udder contained very little milk. An emphysema was also pretty generally diffused over the body; the parotid glands, I thought, were somewhat enlarged, and the throat a little sore; she never attempted to lie down; she had been bled, and had taken four ounces of glauher's salt previous to my seeing her. I ordered a pint of castor oil to be given immediately, the throat to be rubbed with water of ammonia, three or four times a-day, and covered with flannel; the hair to be removed from each side of the chest to the extent of eight inches square, and the following

blister to be applied. She continued very ill all this day. On the following morning, however, I thought her symptoms were somewhat relieved, and I entertained some distant hopes of her recovery. The proprietor being unwell, I was obliged to communicate my opinion through the medium of his servants, who were not sensible of any change having taken place, and who having never heard of a cow being blistered, declared that, even although she recovered, she would become bewitched, and that there would never be any luck about the house while she remained there. In short, they were determined if possible to have the poor animal sent to a slaughter-house as food for dogs. Although, therefore, the cow was much better in the evening, they represented her to their master to be a great deal worse, and that they were certain she would not recover. In fact, as it always terminates in such contests, the volubility of the female tongues had the best of the day, and they prevailed on the proprietor to send the cow to the dogs. The gentleman to whom she



was sent, not knowing that she had been under my care, and thinking she was not so ill as she was represented, sent for me to see her before he would have her destroyed. On my arrival, the following morning, I found her considerably better; her appetite had returned, and she ate heartily of some turnip tops and potatoes; and in a few days she was completely recovered, and was returned to her former proprietor, to the utter astonishment of himself and his servants.\*

## BLISTERING OINTMENT.

Cantharides, powdered, $\frac{1}{2}$ oz.	} mixed together.
Hogs lard..... $1\frac{1}{2}$ oz.	

---

\* I ATTRIBUTE the sudden amendment of this case as much to the exercise of her journey (about a mile), and to the change of air, as to the operation of the remedies applied, which also produced their due effect.

**INFLAMMATION**

OF THE

**LUNGS IN COWS.****CASE II.**

APRIL 30th, 1806.—I was requested to go some distance into the country, to see a cow which was supposed to be ill with a cold. I found her standing, and unable to lie down; panting with great difficulty for breath, with her mouth a little open, and her nostrils much dilated; she had a remarkable dull appearance; the inside of her mouth was hot and dry; her legs, ears, and horns were cold, and she trembled considerably. I attempted to draw blood from one of the neck veins; but, after having got, with great difficulty, about a quart, it ceased flowing; and, although I tried the vein of the other side, and likewise the legs, I could not get any more. I raked her, and found the inside of the gut excessively hot, from which I

extracted a large quantity of dry hard dung. I then threw up an injection, composed of a handful of common salt, dissolved in two quarts of very warm water, which brought away some more. I then removed the hair from each side of the chest, to the extent of six or eight inches square, applied the common blistering ointment to the part, and rubbed the throat well with oil of turpentine, from the top to the bottom of the windpipe. Before leaving her, I gave her four ounces of sulphur and half an ounce of nitre, mixed in a quart of thin gruel, had her comfortably clothed, ordered some cold boiled water to be offered her every half hour, and as much pure air to be admitted as the place would allow. She appeared to suffer from some distressing pain, which I could not account for. Upon inquiry, however, I learned that she had calved only three days before, and had been allowed to remain out yesterday, during a heavy shower of rain. This immediately convinced me that all I had done was in vain. She accordingly expired about six o'clock in the evening. I saw her

opened, and found a very extensive inflammation of the lungs. The stomach, intestines, and uterus were also considerably inflamed, and her flesh was very much discoloured.

THE symptoms of this case appeared to me to be so similar to those which authors describe as attending the pestilential diseases which have at times been so destructive in almost all quarters of the globe, that I was led to compare the symptoms related by these authors with those attending the present case. The result of the comparison was, they so resembled each other in every respect, that I have little hesitation in affirming that the diseases by which so many cattle have been lost, were, in the majority of cases, nothing else but severe colds and inflammation of the lungs. This will appear more evident, from the following description of this disease by Dr. Brocklesby.

*Dr. Brocklesby's Description of the Murrain.*

For ten days or a fortnight the cattle were troubled with a dry cough, which, being a common symptom among cattle, Dr. B. did not consider it as belonging to the disease in question. The hair was rougher on the skin than ordinary, their eyes looked heavy, and when the principal disorder appeared, they refused fodder, but had an insatiable thirst for a time; the milch cows decreased in their milk, which remained to a certain quantity, sometimes for two days, before it changed colour, but at length it often dried up. Upon ceasing to chew the cud, a shivering seized them all over, and a high fever immediately came on. At first the belly was costive; but, for the most part, a looseness succeeded, within forty-eight hours after the shivering fit. The stools were first green and watery, and of a stinking smell; their consistence, however, altered afterwards to a viscid slimy matter; the purging continued till about the seventh day,

and, about that time, the excrements became thicker in such as recovered; and those soon chewed their cud again, and partook of fodder, which they had before absolutely refused through the whole season. All that had not the looseness before the third day died. The urine was very high coloured, and in smaller quantities. The degree of fever was observed very high; upon the third day, the pulse beat near a hundred times in a minute; whereas the ingenious Dr. Hales found a sound ox's artery not to exceed thirty-eight pulses in the same time. At different intervals, after the attack, they all laboured under a prodigious difficulty and panting for breath; some suffered these after the first day, others not before the third. But this disorder suffered remissions, and seemed to be augmented towards evening and at night. Several beasts discharged towards the fourth or fifth day, when ill, a very great quantity of a frothy liquor from the mouth and eyes, others ran actually purulent matter from the nostrils. As the disorder advanced, the eyes sunk more in their

orbits, and some were observed to be quite blind. Towards the conclusion, the fore parts of the body, and particularly the glands about the head were prodigiously swelled, and several beasts had a universal emphysema or crackling of air beneath their skin; those that were not bled equally with such as were. Frequently one might observe pustules break out on the fifth or sixth day, all over the neck and fore parts. Some cattle were raging mad on the first day, such were necessarily killed; some dropped down suddenly; others died on the third, most on the sixth or seventh; very few lived to the fourteenth day; before death the horns and dugs grew remarkably cold.

*Remarks on Dr. Brocklesby's Description  
of the Murrain.*

FROM this account of Dr. Brocklesby, it appears that for ten days or a fortnight, before the principal disorder appeared, the cattle were troubled with a cough, their hair was rough, and their eyes looked heavy: scarcely any other

## LUNGS IN COWS.

symptom need be mentioned to describe the disease. We are next informed that, when the principal disease appeared, they refused to eat, had an insatiable thirst, the milk decreased, at length dried up, a universal shivering came over them, and high fever came on. The urine was very high coloured and in smaller quantity. The degree of fever was very high. On the third day; the pulse beat near 100 times a minute, and they all laboured under a great difficulty and panting for breath. Several of the cows discharged a very great quantity of frothy liquor from their mouth and eyes, or actually purulent matter from their nostrils. Towards the conclusion, the fore part of the body, and particularly the glands of the head, were prodigiously swelled, and the beasts had a universal emphysema or distension of air beneath their skin.

WHAT can be more evident from the description of the disease, than that the beasts laboured under a severe inflammation of the throat and lungs? This is still further



roboredated by the morbid appearances, which were observed upon dissection.

THE lungs, he observes, universally shewed the strongest signs of a preceding high inflammation, most of them were turgid with blood, and they always appeared larger than they do in common. The whole inner surface of the windpipe, was covered with a frothy mucus. .

THE plan of treatment recommended by most authors is very similar, and does great credit, (considering the ignorance of the times,) to the medical gentlemen who so humanely stepped forward in such a cause. Unfortunately they appear, in the generality of cases, to have been unsuccessful in their practice; their endeavours, however, were most praiseworthy, and deserve the highest encomium that can be bestowed.

---

HAVING been formerly consulted by a medical gentleman respecting this disease, I have thought

proper to copy the correspondence, which was as follows :—

“DEAR SIR,—I believe I mentioned to you formerly that I was collecting information respecting the murrain in cattle, for a friend of mine at a distance. By furnishing me with the result of your observations on the nature and treatment of that disease, and on the best means of preventing its attack, you will do me a particular favour. In return, I shall be happy to assist you in any way within my power.

“Believe me, your’s truly,

“A. B.

“GLASGOW, 6th JULY, 1812.”

COPY of my Letter in answer to the above, respecting the murrain in cattle :—

“DEAR SIR,—In reply to your queries respecting the disease called murrain in cattle, I have to observe, that the symptoms described (by all the authors whose works I have seen upon this subject) exactly correspond with the symptoms of

catarrh, and of inflammation of the lungs, cases of which I have frequently met with in the course of my practice among these quadrupeds; the appearances upon dissection also correspond. I have, therefore, no hesitation in giving it as my opinion, that such have been the real pestilential diseases by which so many cattle were destroyed formerly. The cause of it, I conceive, to have originated from improper exposure to the inclemency of the season, or to damp byres, &c. In the more mild stages of it, the disease consists of a sore throat, with a little fever and costiveness, which will be very speedily removed by giving internally half a pound of glauber's salt, and by rubbing the throat with camphorated oil and hartshorn. In the more violent stages, it will be proper to take away a very large quantity of blood, at least a gallon; to give salts as above, to blister the chest on both sides, to put a rowel between the two fore legs, to clothe the animal with warm but not heavy cloathes, to allow it as much pure air as possible, and to hand-rub its legs frequently; to give for food,

gruel, milk, potatoes sliced thin, or carrots, or turnips, cabbage leaves, grass, or any cooling food which it will take; but do not force food into it; offer water (containing a solution of nitre) frequently as a drink.

“ I am, Dear Sir,

“ Your most obedient servant,

“ E. C.

“ GLASGOW, 6th JULY, 1812.

“ P. S. I LATELY saw a calf which got this disease from a shower of rain.”

---

## INFLAMMATION

OF THE

### LUNGS IN SHEEP.

THIS is a disease which I have never yet had an opportunity of seeing. I have, however, frequently seen them opened after death, and the appearances which presented themselves, were exactly such as I have already described in page 76. The lungs were generally black from mortification; in some cases the disease had terminated in suppuration, and had proved fatal by

the bursting of the abscess. Mr. Blaine, a celebrated veterinary practitioner in London, is the only author who has written scientifically and practically upon this disease. I hope he will pardon the liberty I here take in copying his account, as I think it cannot be too extensively circulated.

IN the second edition of his *Outlines of the Veterinary Art*, page 373, Mr. Blaine observes, that he has seen inflammation of the lungs, well marked in sheep, and in them its origin could be clearly traced to exposure to inclement weather. Among my notes of practice, he says, I find that the disease was rather prevalent among the few sheep that were kept near London, in February, 1808. Among other cases that fell under my notice, I was sent for by Mr. Adams of Mount Nod, near Streatham, to see the affected ones in his flock. From the shepherd's account, I gained that all the sick were attacked nearly together, immediately succeeding a very stormy cold night; five of whom were dead when I arrived, and five others

remained very ill with it, and it may be noticed that the whole of them were ewes with young, and within a month of yearning. The first symptom observed was a refusal of food, after which one and all had a peculiar steadfast fixed look; from this they would reel about, elevate the head in the air, become convulsed, and fall backward in a strong fit; and, when the fit ceased, the teeth would grind so as to be heard at a great distance, the flanks heaved violently, the nose and eye-lids were red, and from the nostrils distilled a watery moisture in some, and matter in others. I opened the five dead ones, and in all the lungs were highly inflamed; in some, the whole of the lobes; in others, only one side was affected; but wherever the inflammation reached, that part was condensed almost into a solid mass by the congestion; some of the air-cells also contained pus. In two, the liver was slightly inflamed. The five that were living I immediately bled and blistered; and a drink was given to each, composed of nitre and tartar emetic, which appeared to arrest the disease, as the whole recovered.

**INFLAMMATION**

OF THE

**LUNGS IN DOGS.****CASE I.**

NOVEMBER 1st, 1811.—A gentleman shewed me a pointer dog, which, he said, every trifling exertion fatigued, had become very weak and lean, and was very costive. His hair was rough and staring, his eyes discharged a thick mucus, he swallowed with difficulty some water which was offered him, the glands about the throat were enlarged, and the throat was so tender on pressure that he cried out when any person touched it. I concluded from these symptoms that the case was a slight cold. I ordered one of the following balls to be given twice a-day, to open his bowels, and the following embrocation to be applied to his throat. This treatment was persevered in for a few days, and the dog

looked better; but still all did not seem to be right, and upon more minute inspection I perceived that his breathing was remarkably quick. This induced me to conceive that there had previously been some inflammation of the lungs. I therefore repeated the medicine, and put a seton on each side of his chest; and under these means he was cured.\*

## LAXATIVE BALL.

Magnesia..... 1 oz.

Treacle sufficient to make a paste, to be divided into eight balls.

## STIMULATING EMBROCATION.

Camphorated oil..... 2 oz.	} mixed together.
Water of ammonia..... ½ oz.	

---

\* The dog repeatedly bit the setons in two; I, therefore, in such cases, afterwards employed rowels, when any thing of the kind was necessary.



**INFLAMMATION**

OF THE

**LUNGS IN DOGS.****CASES II. AND III.**

JANUARY 20th, 1813.—I WAS requested to see some dogs (belonging to a gentleman in the country), which were unwell. Among them were a mastiff and a greyhound, both affected with inflammation of the lungs. They respired with considerable difficulty, had a full, hard pulse, frothed considerably at the mouth, appeared remarkable dull and dejected, and were costive. I proceeded to bleed them both; but the mastiff was so savage, that it was not till we had bound his head in a small bag, that we could get a sufficiency of blood taken from him. I got plenty of blood from the greyhound without any difficulty. I thought the best plan to pursue would be to rowel each side of

the chest of them both. Accordingly, I got assistance to throw them down, and without much difficulty inserted the rowels. I then gave an ounce of sulphur, mixed with butter, to the greyhound; but the mastiff, notwithstanding his distress, and severity of his complaint, would not submit to have any thing given him. We were, therefore, obliged to leave him to chance. I requested them to be fed chiefly with veal broth, made from calves which are called slinks, (that is, calves which have been found in the womb of a cow killed at the slaughter-houses,) and directed some sulphur to be mixed with it. The next day I was informed, the mastiff, shortly after he was set at liberty, had contrived to get both his rowels out; but that he had taken plenty of broth, and had also taken some of the boiled meat. As he would not suffer any person to meddle with him, I could not get him examined. However, I examined the greyhound, and found him a great deal better. I desired the broth to be continued to both of them, with the sulphur. They both recovered without any further trouble.

**INFLAMMATION****OF THE  
LUNGS IN DOGS.****CASE IV.**

A GENTLEMAN, who resided about eighteen miles from Glasgow, sent for me to see some of his horses which were unwell. On entering the stable-yard, I saw a dog lying dead. This turned out to be a favourite watch-dog, which I had repeatedly told the proprietor was kept in too damp a place. I solicited permission to open him, which was readily granted. I found he had died from inflammation of the lungs, which were in a state of mortification. The windpipe was also very much inflamed throughout its whole extent. In fact, the appearances were exactly similar, to what is represented of sheep when they are said to die rotten.\* His illness had not been suspected; of course nothing had been done to relieve his complaint.

---

\* See page 76.

## LOCKED JAW.

**T**HIS is a spasmodic disease to which horses, among domesticated quadrupeds, alone are liable. In its confirmed state it has, I believe, hitherto baffled all the resources of art; and, in the generality of cases, the practitioner can do nothing but contemplate the progress of the disease, and be a spectator of sufferings which he cannot alleviate.

### *Causes.*

THE most common causes of locked jaw, are wounds of various descriptions; particularly, punctured wounds, injuries of the tail, from nicking and docking, and wounds of the feet from shoeing, or from nails running through the sole of the feet. Catarrh frequently produces it, and it is not an uncommon termination of inflammation of the lungs. It also sometimes occurs as an idiopathic affection without any apparent cause.

*Symptoms.*

THE first symptoms observable in this disease, are generally a difficulty in mastication and deglutition, the neck becomes stiff, the legs are widely separated from each other, and the tail and ears erected. The jaws are partially closed; the secretion of saliva is considerably increased; the patient sometimes makes a sucking noise with his mouth; the nostrils are expanded; the eyes are drawn into their sockets by the retractor muscles, and the membrana nictitans or haw is partly spread over the eye ball. As the disease advances, all these symptoms are increased in intensity; every part of the body becomes rigid, and every fibre seems to participate in the prevailing contraction; the jaws are inseparably closed, the belly feels hard as a board, the bowels are obstinately costive, the respiration from the spasm affecting the diaphragm becomes difficult, deglutition is impossible, the legs become immoveably fixed at a distance from each other; and, generally, in a violent convulsion the animal expires.

*Treatment.*

It is much to be regretted that, in veterinary medicine, no certain remedy for the cure of this dreadful disease, has yet been discovered. A variety of things have been proposed and tried. In some few instances, their exhibition has been attended with success, while in many more the same practice has entirely failed. From this great uncertainty of success, I think, that, instead of recommending any particular practice, the most useful plan that I can adopt will be to give a detailed account of what has been written by various authors on the subject, as also the result of a few cases occurring in my own practice.

MR. BOARDMAN observes, in his Dictionary of the Veterinary Art, "That for the cure of locked jaw, the greatest extremes of heat and cold have been recommended; such as supporting a high state of perspiration in the animal, for several hours, by covering the body in blankets, &c. or immersing the patient for a length of time in

snow or cold water. We have heard of advantages attending both these methods, and we have had a few opportunities of giving them a fair trial; not, however, with that benefit that we could have wished. It will be here necessary, notwithstanding, to point out the most probable means of success.

“ WE are convinced that, in cases of locked jaw, opium, in large doses, is the remedy on which our hopes are principally to be founded; it may be given, indeed, in very large quantities in all spasmodic diseases, without being attended with those hurtful consequences, it is commonly accompanied with on other occasions. The doses ought to be repeated as the power of them appears to wear off. In the infancy of the disease, where the pulse will justify it, by indicating an inflammatory propensity; bleeding is required; but without this precaution the practice is now generally considered as improper. A costive state of the intestines will certainly tend to aggravate the complaint; so that by relaxing them, we may promote a relaxation in other

parts. Therefore, when we are not prevented by the closeness of the jaws, or the difficulty of deglutition, and when costiveness exists, the following drench may be given every six hours, until it operates :—

Thin gruel of oatmeal ..... 1 pint.

Castor oil, or }  
Olive oil, } ..... 12 oz.

Glauber's salt ..... 4 oz.

Dissolve the salt in the gruel, whilst warm, and afterwards mix the whole into a drench. Spasmodic diseases are such as allow the loss of but little time; of course, before we can possibly perceive the consequence of this aperient treatment, it behoves us to employ, in the mean while, other useful medicines. Let the following ball be given every three or four hours, or as often as the state of the case may demand :—

Purified opium ..... 8 dr.

Salt of hartshorn }  
Camphor } of each ½ oz.

Syrup, sufficient to make the ball.

We have already remarked that costiveness is to



be avoided as much as possible; laxatives, independent of other utility in the above complaint, will beneficially counteract the astringent quality of opium. So far we have been treating of the disease, as in its most favourable stage.

“WHEN the jaws are already so far closed as to prevent the admission of medicines, the only means left, are the introduction of them in clysters. Of these, a laxative one, as the following may be given, at the discretion of the practitioner:—

Thin gruel ..... 4 quarts.

Common salt ..... 6 oz.

Olive oil, or }  
Hogs lard, } ..... 4 oz.

Dissolve them together, and administer in the usual manner. We cannot precisely ascertain the quantity of the opiate that can be administered in this way to the horse with safety; we conceive, however, that it is pretty considerable. The following may be injected without danger every three or four hours:—

Oatmeal gruel ..... 1 quart.

Purified opium ..... 6 dr.

Spirit of hartshorn ..... 1½ oz.

Camphor (previously rubbed into a liniment  
with a little spirit of wine) ..... 1 oz.

Dissolve the opium in the gruel, and mix the whole together.

“It is necessary to remark that this composition can prove but of little utility, during the active operation of the clyster; and, of course, it should be contrived that these very opposite remedies interfere as little as possible with each other. Notwithstanding we have not yet been lucky enough to witness the success of the application of cold water, to the surface of the bodies of horses, labouring under locked jaw, our hopes of its beneficial tendency are still sanguine; and we are induced to think the more favourable of it, from the encouraging reports communicated to us by others. In similar diseases of the human subject, its use has been attended with the most beneficial results. Im-

mersion in cold water is readily accomplished; but, perhaps the most efficacious method would be that of pouring large streams of water on the animal, for the space of ten or fifteen minutes; and, should a remission of the spasms ensue, it will afford us no little encouragement in our pursuits; and in this interval of ease, a favourable opportunity will present itself of passing medicine by the gullet.

“WHEN the complaint returns with any degree of violence, the cold water is to be repeated; the longer and the more frequent the remissions become, the nearer of course will be the prospect of a cure. Immediately after the application of the cold water, let the skin undergo a diligent and general friction until it is dry; let the animal be then moderately clothed.

“THE introduction of mercury into the system, in persons affected with spasmodic diseases, by frictions on different parts of the body, with strong ointment of quicksilver, so as to produce

and support a degree of salivation, has been sometimes attended with the happiest effects. We have never heard of this experiment being tried on the horse; but certainly it deserves the practitioner's attention.

“THE warm bath in spasmodic diseases has many advocates; perhaps it might be beneficial if it could be used to that extent with the horse, which it admits of with the human subject. When locked jaw is conjectured to have arisen from the operation of docking, it is usually considered prudent to remove another portion of the tail; afterwards applying such dressings, as are most likely to hasten a free discharge of matter from the stump. The same dressings may be recommended when nicking is suspected to be the cause of the disease, and the extremity may be also surrounded with a large poultice. Where the disease arises from the foot having been pricked in shoeing, the wound should be opened freely, with a drawing knife to the bottom; the actual cautery may then be

applied, and the part scalded with a little turpentine as a dressing. All punctures should be laid tolerably open, and digestives applied; and, where an inflammation and swelling attend, fomentations are requisite. Let it be remembered, however, that these topical means alone are never to be depended upon; but must, in locked jaw, be invariably assisted with the remedies heretofore mentioned.

“ SHOULD it be imagined that bots or other worms, lodged in the stomach or intestines, have produced the disease, a circumstance which we are apprehensive is rather difficult to determine, a drachm of calomel may be given in one of the balls, or an ounce of the strong mercurial ointment may be dissolved in the first anodyne clyster.

“ IN conclusion, we may observe that we have witnessed the recovery of a few mild cases of locked jaw, in which scarcely any means of relief have been employed, except

turning the horse into the cold air. Indeed such cases so frequently terminate fatally, that the owners of horses thus diseased, generally leave them to their fate. In the above instances, considerable rigidity existed in the muscles; the act of deglutition was slightly obstructed, but not prevented; and the jaws were only partially drawn together. On these occasions, the complaint could seldom be traced to any particular source."

MONSIEUR FERON, in his *New System of Farriery*, observes, "That locked jaw is a disease that arises from an irritation of the nervous system, which produces a peculiar irritation upon the nerves (or a cramp of the whole body), even spasms of the internal viscera (except the heart), to such a *dégré* as to have entirely destroyed their sensibility, so that no effect can be produced by stimulants, in which case the animal becomes costive on account of the stomach and bowels, having lost their sensibility; but does not die for want of food, as it is supposed by all the stabularians.

“LOCKED jaw being a disease of the brain I have been induced, after the example of Mr. Coleman, to trepan; in order to press upon the brain, and see whether this operation would reduce the spasms or not to a kind of palsy; but no effect was produced by the trial. Mr. Coleman has tried to give two pounds of an infusion of tobacco; but this has aggravated the symptoms. Hellebore, aconitum, opium, &c. have been tried at the Veterinary College, even in very large doses; but no effect can be produced by these powerful medicines,

“THE treatment seems to be confined to the most powerful antispasmodics, such as bleeding, and immersing the animal in a warm bath (at ninety degrees of heat), which I have known to be successful, provided the whole body be covered with the water, for two or three hours, after which the horse must be kept extremely warm and well clothed, unless the symptoms should return with more violence. From the insensibility of the stomach and intestines, we may give, with safety, twelve or fourteen drachms of

aloes at a time, and sometimes without any effect. In consequence of the costiveness, frequent large clysters of warm water, with soap dissolved in it, are indispensably necessary."

MR. WHITE, in the eighth edition of his Treatise on Veterinary Medicine, observes, "Various remedies have been tried in this complaint; but I do not think any effectual mode of treatment has yet been discovered. Immersion in cold water, or even snow, is said to produce a temporary relaxation of those muscles by which the jaws are closed. Opium and camphor have been strongly recommended. I have lately been informed of a case in which a combination of these medicines completely succeeded.

"IN America and the West India Islands, where the disease is much more frequent than it is in this climate, strong stimulants have been found effectual; it would be advisable, therefore, to try the same plan upon horses, should opium and camphor fail. The best stimulants for this purpose, are



spirit of hartshorn, ether, opium, and brandy. I have been informed that a blister applied to the spine, or back, throughout its whole length, from the withers to the basis of the tail, has proved successful in several cases. I have had only one opportunity of trying it, in which it did no good ; but the disease had existed some time, and had become very violent before any remedy was employed."

THE almost universal fatality of this disease has discouraged all attempts towards any improvement in the treatment of it. Indeed it is not surprising that farriers, finding their practice so uniformly unsuccessful, should consider the disease as incurable, and condemn, in every case they met, their patient to the tan-yard. During the first ten years of my practice, I failed so frequently in the treatment of this disease, that I began to consider it as beyond the reach of medicine. Some of the cases were too severe for almost any relief to be expected ; others again were so mild as to hold out some encourage-

ment for the trial of various remedies. Both of them, however, ended in the same fatal manner. At length, I met with the following case, which, I was informed, had been given up, previous to my seeing it, by seven farriers.

---

## LOCKED JAW.

### CASE I.

JUNE 22d, 1805.—A GENTLEMAN called upon me to state the case of his horse, and to consult me concerning the possibility of a cure. He had previously taken the advice of not less than seven farriers, each of whom pronounced it to be a case of locked jaw; a disease which, according to them, was totally incurable. He told me that it was his intention, unless I could promise a cure, to send him to a tan-yard, and have him destroyed. I answered, that I could not speak

decidedly on that head without seeing the animal. It was, therefore, agreed upon that I should call at his stable, at five o'clock, that afternoon. He, however, had not patience to wait the event of my attendance; but brought the animal to my Infirmary, intending to proceed with him to the tan-yard, if I thought I could do nothing to relieve him. On examination, I found it to be as was stated, a case of locked jaw; it was yet only in the first stage. The neck was somewhat rigid, but not totally so; the tail and ears were a little erected; the eyes were drawn into their sockets, and the haws thrown over them, upon the least alarm; the jaws were partially closed, but not immoveable; the nostrils were dilated; the legs widely distended; the breathing short and quick, and the bowels obstinately bound. On inquiry I found he had had a slight cold previous to the accession of these symptoms, conceiving that the disease might depend on the cold, I had some hopes that he might be cured, and I prevailed on the gentleman to take him home again. I

gave that evening four ounces of sulphur, which was repeated every morning and evening for two days, but with very little effect. The throat and chest were at the same time blistered; and he was fed with sliced potatoes or grass, and had thin gruel for drink. The potatoes and grass were obliged to be put into his mouth, between his grinders; he chewed them and swallowed them with considerable difficulty. Three days elapsed without any particular change. On the fourth day, the sulphur not having operated, I had recourse to mercurial purgatives. I gave a drachm of calomel in the morning, and half a drachm at night, with a few grains of powdered opium in each dose. On the following morning, I repeated it, although the others had begun to operate. In the course of an hour or two after, the purging commenced, the animal was much relieved, so much so, that it could pick up its food out of the manger without assistance. The purging continued the whole of the day, and towards evening every symptom of the disease left the animal, except the starting at any

noise. On the ninth day, as the animal was perfectly well, the owner turned it out to grass, and it never since showed any symptom of the disease.

---

## LOCKED JAW.

### CASE II.

OCTOBER 7th, 1807.—A farmer called to ask my opinion respecting a young draught mare, which he suspected had the locked jaw. He described her as being unable to open properly her mouth to take in food; that her breathing was rather short and quick; her neck somewhat stiff; she slavered, and made a sucking noise in her mouth; her eyes were drawn into their sockets on the least alarm; and she was not, as he suspected, open in her bowels. I sent her two doses of sulphur, four ounces each dose, one

to be given that evening, and the other the next morning ; and some blistering ointment to blister each side of the chest. On the 9th, he requested me to go and see her, as he could not perceive any improvement. I found the symptoms exactly as he described them, with the addition of the legs being widely separated from each other. As she was still very costive, I raked her, and gave her an injection composed of Epsom salt, four ounces dissolved in two quarts of warm water. I also gave her a dose of physic, composed of socotrine aloes, half an ounce, and calomel, one scruple. On the 12th, he came to inform me she was nearly well ; but, he thought, she had still some difficulty in swallowing. I gave him some blistering ointment to blister her throat, and recommended him to keep her bowels open, with sulphur and bran mashies, for which purpose I gave him half a pound of sulphur, divided into eight doses, one to be given twice a-day, and advised him to give her as much gentle exercise as she could bear. This finished her cure.

## LOCKED JAW.

### CASE III.

NOVEMBER 10th, 1808.—I was requested to go about ten miles into the country, to see a horse which had been unwell for about a week. I found it to be a case of locked jaw, presenting the following symptoms:—The neck was rather stiff, the eyes were drawn into their sockets upon the least alarm, the mouth was frothy, the jaws were partially closed, and the teeth grated together, the tail and ears were considerably erected, the hind legs were very widely separated, and rather stiff, he was very costive, and the respiration and pulse were both quickened. Conceiving that these symptoms were produced by cold, I blistered the throat, raked him, and threw up an injection of four ounces of Epsom salt, dissolved in two quarts of warm water; I then gave a dose of physic composed of socotrine aloes, six drachms, ginger one drachm. This

treatment abated the symptoms; and the proprietor wrote to me for more medicines to open the bowels. I sent eight ounces of sulphur, divided into eight doses, one to be given every morning and evening in bran mash. The horse continued mending till the 23d, when the proprietor called to inform me that he thought there was a deficiency in the quantity of urine the horse made, and wished me to give a diuretic ball; to this I readily consented, and the animal recovered very fast after it.

---

## LOCKED JAW.

### CASE IV.

JULY 2d, 1809.—I was requested by an innkeeper, to give my opinion of a horse affected with locked jaw. The disease was supposed to have been produced by a blow, received from another horse on the hock joint. When I saw



him, I found the jaws had still so much motion, that he could chew sliced potatoes; the eyes were drawn into their sockets upon the least alarm, the neck was very stiff, the tail and ears were erect, and the legs were stiff and separated very wide. I recommended a blister to be applied to the hock, and another to the throat; these gave considerable relief, so much so that he could sup gruel from the manger, and eat grass. These were the only articles that, after employing every enticing method, we could get him to take; for he was so fractious that he would not allow any person to touch his mouth. We were, therefore, obliged to decline giving the sliced potatoes, and he continued to eat grass from the hands of his attendants, and sup gruel out of the manger. On the 4th of July, his eyes and eye-lids became very much inflamed, and the latter were considerably swelled. Both of them were very much relieved by poultices; but the eyes became perfectly opaque, so that I fully expected he would lose his sight. There was at the same time a very considerable discharge of a fluid of a

thick consistence flowing incessantly from his mouth, which was a good deal swelled. In this state he continued for several days, and, on the 8th, he began to shew symptoms of recovery, so as to be able to bear a little gentle exercise, and eat pretty freely. On the 9th he was allowed to exercise himself in a small park by the house. On that day also I put a rowel in the chest. From this time he recovered very fast.

I WAS much at a loss to account for the inflammatory symptoms of the eyes and mouth, and the discharge from the latter. I was, however, soon informed of it, when he was completely recovered; for the landlady informed me that she had salivated him by rubbing mercurial ointment about the jaws, and to this she attributed the cure.

## LOCKED JAW.

### CASE V.

SEPTEMBER 15th, 1809.—A carter called to take my advice about a horse of his, which he told me made his water more frequently than natural, and could neither eat nor drink with his usual freedom. Finding on examination that the animal was sensible of considerable pain when I applied pressure to the loins, I concluded that he had been racked in the back. On enquiring at the man, he confessed that I was right in my conjecture. On farther examination, I also detected very marked symptoms of locked-jaw; the jaws were firmly set together, the neck was stiff, the tail and ears were erect, the legs were all extended considerably wider than natural, the eyes were drawn in by the retractor muscles, the parotid glands were enlarged, the throat rather sore to the touch, and he was also very costive. I raked him and threw up an injection

of Epsom salt, dissolved in warm water. I attempted to give sulphur by the mouth, out of a small necked bottle, but the animal could not swallow it. I had his throat extensively blistered, and the loins fomented with a solution of the acetite of lead in hot water, for an hour and a half, and ordered the injections to be frequently repeated. On the day following, the man came to inform me that he was quite open in his bowels, and a great deal better. As he had begun to eat, I recommended an ounce of sulphur twice a-day in bran mash; I heard nothing more of him till I saw him about a fortnight after, quite well, and drawing a loaded cart.

---

## LOCKED JAW.

### CASE VI.

FEBRUARY 21st, 1810.—I was requested to see a horse that was supposed to be affected with

locked jaw. The symptoms I observed were great debility, quick respiration, rigidity of the muscles of the neck, a slight increase of the salivary secretion, with the sucking usually attending a locked jaw, the jaws were also partially closed, the eyes drawn into their sockets, and the whole frame agitated on the smallest exertion; the hind legs were stiff, a little swelled, and moved with difficulty; and the heat of the mouth was somewhat increased. I understood that he had been ill for a week, and had been attended by a farrier, who I was informed had bled him, and blistered his throat, and on the suspicion that he had been racked in the back, had put a sheep's skin upon his loins; he had also given some sulphur and nitre in bran mashes, of which he partook, though rather sparingly. As the bowels were open, and the horse appeared to have been properly treated, I declined making any addition to what they were employing, and recommended every thing to be continued except the sheep's skin, which I thought was needlessly employed. The next day I found him in much the same state, I thought

he staled rather too much. I therefore desired the nitre to be omitted, and recommended them to give a few raw potatoes or carrots sliced. The horse continued for a week in much the same state, when he began to mend. The swelling, however, proceeded from the hind legs along the belly, enlarging the sheath very much, and extending towards the thorax. I inserted a rowel in the chest, and as he was very weak, I wished to have given him some cordial balls with bark; but, the owner grudging the expence, I ordered in place of them, a quart of new milk boiled, and sweetened with honey or treacle, to be given twice daily. From this time he began to mend every day, and on the 9th March, when I took out the rowel, the horse was quite well.

---

## LOCKED JAW.

### CASE VII.

FEBRUARY 15th, 1811.—I saw a grey stallion belonging to a farmer, residing about seven miles

in the country, which was affected with symptoms of locked jaw. On the 6th of February, this horse was at a fair, where £70 was offered for him. The whole day (which happened to be very rainy and cold), the horse stood exposed in the market, and, when he returned home, no attention was paid to him more than usual: about a week after he was observed to be very dull and refused his food. A gentleman's servant having seen the horse during a visit at the proprietor's house, considered him to be labouring under inflammation of the lungs, and took away a large quantity of blood, which gave great relief. Finding, however, symptoms of locked jaw upon him, he advised them to send for me. When I arrived on the following day, I found him too far gone for a recovery to be hoped for. His tongue was very much swelled, he could not swallow any thing, and he had all the other symptoms of locked jaw, very strong, except his mouth not being completely closed. I raked him, and gave him an injection of common salt and warm water, which brought away a consider-

able quantity of dung; I also got him put into a loose place, where I blistered his throat, and each side of the chest, and endeavoured to salivate him by rubbing mercurial ointment on his cheeks. Our exertions however proved fruitless, and he died on the second day after I saw him.

---

## LOCKED JAW.

### CASE VIII.

JUNE 4th, 1814.—A gentleman residing in the country, requested me to see a draught horse of his, which was affected with locked jaw. I found the following symptoms present:—The neck was very stiff, as were likewise all the four legs, and separated very widely from each other, the ears and tail were erect, and the eyes drawn in by the retractor muscles on the least alarm; the jaws, however, were but partially closed. I blistered the upper part of the throat, and gave



two drachms of calomel every morning and evening. He purged a good deal after getting the fourth dose, and when it commenced the symptoms abated, and he recovered without further trouble.

---

## LOCKED JAW.

### CASE IX.

JANUARY 5th, 1815.—I saw a young draught mare, which was affected with the following symptoms of locked jaw:—The neck was very stiff, the ears and tail erect, the legs a little separated from each other, but not stiff, the jaws were partially closed, but I could open the mouth, sufficiently to give medicine from a bottle. On inquiry, I learned that her tail had been docked about a month before, which, instead of being fired to stop the bleeding, had been tied with a string, which had remained on one night. On examining the tail, I found a small portion of the stump about the size of a horse bean, protruding,

and in a state of mortification. I applied a solution of blue vitroil, mixed with tincture of myrrh, and over it a dressing of Venice turpentine. I afterwards blistered the throat, and gave four ounces of sulphur, mixed with water, to open the bowels. On the 8th, I was informed she was a great deal better, but very costive. I therefore sent out the following dose of mercurial physic, viz. :—Barbadoes aloes six drachms, calomel one drachm, ginger two drachms, made into a ball with simple syrup. This was accordingly given to her, and she recovered perfectly.

---

## LOCKED JAW.

### CASE X.

MAY 29th, 1815.—I saw a young saddle horse which had the following symptoms of locked jaw. The neck was very stiff, the tail and ears erect, the eyes drawn into their sockets on the least

alarm, the jaws were closed, but not immoveably, the nostrils were dilated, the legs were widely distended, the breathing was rather short and quick, and he was costive. I blistered the throat, and gave four ounces of sulphur, mixed with water, to open the bowels. These means abated the complaint a good deal, but not to my satisfaction. I therefore put a rowel in the chest, which was attended with the desired effect. The symptoms, however, still continued, though in but a trifling degree. This induced me to inquire if he had been docked lately; and I was informed that this operation had been performed upon him about a month before. On inspecting the tail, I found the stump full of proud flesh, and much discoloured. I applied to it some powdered blue vitriol, and dressed it with Venice turpentine. This was repeated two or three days; the symptoms abated very fast, and the horse soon recovered. This horse was only three years old, and had been docked before.

**LOCKED JAW.****CASE XI.**

NOVEMBER 14th, 1816.—I was sent for to see a cart horse, belonging to a gentleman in the country, which was unwell. The following was the account of his case:—For the last fortnight he perspired a great deal; and appeared occasionally, when at work, to be very weak; and he sometimes coughed a little. Yesterday he became worse, and was not able to work at all. He shivered a good deal, and appeared to be very cold; broke out into severe perspirations, and seemed to suffer from some severe pain. He did not lie down during the day, and at night he was very restless and uneasy. He ate and drank well, and was sufficiently open in his bowels. Having, about two months previous, passed a large worm, it was suspected that his pain proceeded from worms. When I arrived,

he had been taken out for a little exercise, and was just then going into the stable. I remarked that he appeared a little stiff about the neck, which he carried very like a horse with locked jaw. When I examined him in the stall, I could not observe any particular symptoms of indisposition about him, except that I thought he stood wide with his hind legs, and his tail was somewhat erect. I was told, however, that he had a habit of standing wide, and that he frequently moved his tail about, which was supposed to be the effect of worms. I told the owner, I suspected that it was a case of locked jaw; but, as the jaws were as yet perfectly free from contraction, and as there was no affection of the eyes or mouth, I could not be certain. I gave him a whole bottle of castor oil, which I thought would be useful either for worms or locked jaw. It scarcely operated any; the horse had only three stools the next day. On the 16th, a servant came to inform me that the symptoms of locked jaw were completely formed. I went to see him, and blistered his throat and his back. I gave

him also half an ounce of calomel, with ten drachms of aloes, and two injections of Epsom salt, dissolved in warm water, without, however, producing the smallest effect on the bowels. On the following morning, I received intimation of his decease, and was desired to go out to see him opened. I found, to my great surprise, that the case had been an inflammation of the lungs and windpipe, both of which were in a state of mortification.

---

## LOCKED JAW.

### CASE XII.

MR. WHITE, in the eighth edition of his Treatise on the Diseases of Horses, states the following successful case:—

“I HAVE lately met with a case of locked jaw that appeared to have been caused by a wound

in the foot, which was completely cured by the following treatment. Upon examining the horse, I found the wound in the foot nearly healed; the jaws so closed that he could not even take food into his mouth, though he was constantly endeavouring to do it, and appeared very hungry, having been incapable of eating any thing about twenty-four hours before I saw him. The muscles of the neck were in a natural state, though the jaws were so closed as to prevent him taking food into his mouth; the teeth were not absolutely in contact; and we were able, but with great difficulty, to introduce gradually a large dose of opium and camphor. When we first attempted to give this draught, the animal appeared so agitated and resisted so much, that it required the assistance of several men to give it. As soon as the medicine was given, a strong blister was applied to the spine, or middle of the back, beginning at the withers, and continuing it the whole length of the spine, even to the basis of the tail. The blister was carefully rubbed in, and afterwards a fresh quantity was spread

upon it, in order to expedite its action. A caustic was then applied to the wound in the foot. In about six hours we endeavoured to give some strong gruel, and found much less difficulty in doing it than in giving the medicine at first. The jaws, however, were still nearly close, and some dexterity was required to pour the gruel into the throat. Soon after this, another dose of opium and camphor was given, and water gruel several times. During this time the jaws appeared to be rather more open, and there was less difficulty in giving the gruel. About twenty-four hours after the application of the blisters, during which time he had taken two strong doses of opium and camphor, and some gruel, the horse was able to feed, and even to eat hay. Another dose, but weaker, of opium and camphor was given. The complaint did not return."



THE following singular case is related by MR. GIBSON, in his Treatise on the Diseases of Horses, second edition, Vol. I. page 291 :—

## LOCKED JAW.

### CASE XIII.

A YOUNG troop horse was suddenly seized with this kind of convulsion, which was first discovered as he was leading out to water, at the afternoon's watering time. "I happened," says Mr. Gibson, "to be then present, and perceived him come reeling along, with his nose turned out, his eyes fixed and immovable, with all the other signs that usually attend this fatal distemper; and when he came to the trough he could not reach the water, because of the cramp and stiffness of his neck; and when it was held to him in a pail, could not drink, though he shewed an eagerness for it; his mouth being shut up so close, that it was scarcely possible to put a knife between his

teeth. We found it impossible to administer any kind of medicine, till, by rubbing his cheeks, jaws, and temples, and his whole neck, for a considerable time, we made a shift with great difficulty, to thrust down part of a calomel ball, on the end of a small stick, and then to pour into his nostrils, a very small portion of a strong cephalic drink, thinking by that means to convey the ball downwards into his stomach ; which, however, had but little effect, any farther than this, that he had not such sudden fits and agitations as I have seen in others in the like circumstances, but continued more quiet ; neither did his fever increase, as usually happens when the distemper is gaining ground ; but all this while his mouth continued so much shut, that he could neither eat nor drink for three weeks ; only by continually rubbing his jaws and neck, he would sometimes make a shift to suck a handful of scalded bran, or sometimes a little oatmeal, moistened with warm water ; but in so small a quantity, that it is possible he might have starved,

if other methods had not been taken to keep him alive.

“I HAVE often observed that the forcing the jaws open, by violent means puts a horse into such agonies, that it rather increases than abates the symptoms; and therefore I contrived to give him both food and physic by the fundament, through a pipe fourteen inches long, by which he seemed to receive great benefit, for we could perceive the symptoms to abate daily. His flanks grew more quiet, he stood more still, and free from sudden fits and startings; all which symptoms are usual in the continuance and increase of the distemper. The clysters were contrived in the following manner:—

“RUE, pennyroyal and chamomile flowers, of each a handful; savin and box, of each a handful; garlic an ounce; castor and assafoetida, of each half an ounce.

“IN making this clyster, the herbs are to be

boiled first, in two quarts of water, in a covered vessel, the space of ten or fifteen minutes; with the castor and assafoetida cut in small pieces, and tied in a rag, not only to save the castor from waste, but that it may be squeezed into several clysters. Then the garlic to be added, and continued, close covered, over the fire the space of ten minutes longer; after this, the liquor to be poured off into a pan, or any other convenient vessel; then add of lintseed oil or treacle, of either four ounces, with half an ounce of unrectified oil of amber; the treacle and oils are to be mixed with the decoction when it is put into the bag.

“THIS clyster was repeated once a-day for a fortnight; and, by way of diet, was given every day three or four quarts of milk boiled with oatmeal and water, a bag with a long pipe being left in the stable for that purpose. He retained every thing that was administered that way, which he generally sucked up of himself, without force. This perhaps was in some measure owing

to the nature of this universal convulsion which causes such irregular motions in the midriff, and muscles of respiration, as in some measure inverts the natural motion of the guts; and, for the same reason, horses in this condition seldom dung, but stale often; and, when they dung, it drops from them in a manner insensibly, and often no more than one or two balls at a time; and, therefore, as this horse could receive little or no sustenance by the mouth, I was determined to make trial how far he might receive nourishment by way of injection backwards; whether a thin diluted food thrown into the strait gut, and from thence over into the small guts, by the help of a long pipe, might not find a passage into the blood, through the lacteals, especially there being experiments of this kind made on the human body, both in administering food and physic, particularly in giving the bark, by way of clyster, in agues and intermitting fevers, which has been found successful where the stomach was not able to bear its austerity. It was upon this footing that I treated him in the manner I have described,

which I imagined was not altogether without effect; for he scarce ate in three weeks what was sufficient to sustain him one day; so that it was impossible for him to have lived, had he not been supported by what was thrown into his bowels; and, though by this means he lost his flesh very sensibly, yet he still retained a good deal of vigour and vivacity. He had two men constantly to look after him, and these, relieved by others, who had orders to rub his whole body often, which greatly helped to relax his skin, and remove the crampness of his muscles; and though he had not for the first fortnight recovered the use of his jaws, yet we observed him daily to move with less stiffness, and often to lick in his manger, as if he craved after food; he also breathed with less difficulty, and had several other good signs. This encouraged me to try another experiment with opium, from the known quality of that drug in relaxing the animal fibres; which I therefore thought might be of service to remove the contractions of the muscles about his mouth and jaws, which all this while continued

in some measure obstinate, and without some powerful relief, might prove fatal, even though the original cause was in a great measure taken away; therefore, I caused half an ounce of crude opium to be dissolved in one of his clysters, which was followed with these circumstances—that the horse soon lay down, began to point his ears backwards and forwards, and could move his neck pretty freely, and his mouth was so far at liberty, that he took his drinks with little or no difficulty, and could eat hay or bran sufficient to sustain him. He likewise moved his whole body so readily, that we could walk him an hour every day; and that I might follow up what I imagined had been so successfully begun by the opiate clyster, I ordered him some days after, an ounce of the common Matthews' pill, which contains about two drachms of opium, and the same quantity of assafoetida, made into a ball, which was given at his mouth, and washed down with a hornful of gruel, which was done with great ease, his mouth being grown pretty pliable. This ball being once more repeated, he recovered daily,

being continued for some time in the use of the drinks, which were now administered only twice a week, with good rubbing; and, as soon as he began to recover his flesh, he was gently purged. By these means he was perfectly cured, without any other ill effect than a blemish upon one eye, caused by the violent and strong contraction of the muscles during the convulsions, which indeed were as bad as any I ever saw, even where they proved the most fatal."

THERE are several cases related by this author, but the description is curtailed, and the facts few and unimportant. The one which I have just quoted, is the most extraordinary and most minutely detailed. The author informs us that he could have added several other instances, but for brevity's sake he was obliged to pass them over. The remedies which he chiefly recommends, are the different preparations of mercury exhibited both internally and externally, with infusions or decoctions of assafoetida and castor; from the mercurials he mentions that he has



witnessed most extraordinary effects, and it will be observed that, in some cases which came under my own practice, mercury was employed as a purgative with great success, and in one case, where it was carried the length of salivation, it seemed to have been attended with beneficial effects. However, in this particular case, it is somewhat difficult to ascertain whether the advantage was obtained by the mercury, by the blister, or by the bowels being kept open, from the diet and the weather being favourable at the same time. The best way of administering it, is to make it into a small ball with treacle, which, if the mouth is too close to admit it otherwise, may be put over the horse's tongue, by means of a pointed stick on which it has been fixed. I have known several instances of locked jaw coming on after nicking; but I never met with an instance of it occurring where the horse had been physicked immediately after the operation.

**BROKEN WIND.**

**T**HIS is a disease which is very distressing to horses, and renders them almost useless to their owners. Some of them may perform light easy work for several years; but the greater number, I presume, become consumptive and gradually pine away from its effects.

*Causes.*

**BROKEN** wind, I believe, is generally the consequence of some neglected or mismanaged case of disease of the organs of respiration, which has terminated in the deposition of coagulable lymph, in the ramifications of the windpipe. Its presence, acting as an extraneous substance, produces a constant irritation and cough, which, at last, bursts the air cells of the lungs themselves, or

their substance may become thickened, and they may be thereby rendered incapable of performing their proper action. Some authors imagine it may be produced by effusion of water in the chest, how far this may be considered a cause at present remains doubtful. The other causes are too high feeding, keeping them in an ill ventilated stable, and not giving them a sufficiency of exercise.

#### *Symptoms.*

THE presence of this disease is indicated by the peculiar mode in which the horse breathes. Inspiration is performed easily; but it is in expiration that the animal experiences the difficulty. He appears as if he had taken in too much air, and commences the expulsion of it by a sudden jerk, and then puts every muscle, auxiliary to respiration, into violent action, that he may completely expel all the air he has taken in. This may be seen by the depression which takes place between every rib, and in the flanks. A

disagreeable short cough, attended with a kind of loud wheezing noise, is also a characteristic of this disease. It is customary with horse-dealers to make a horse cough, by pressing the upper part of the windpipe; if the cough be clear and strong, they usually consider the horse sound in his wind; but, if they find that he coughs with difficulty, and especially if he makes the wheezing noise alluded to, they consider him unsound. A costive state of the bowels generally attends this complaint.

### *Treatment.*

In the treatment it is necessary to recollect, that there are many cases in which very well marked symptoms of broken wind may be present when no such complaint does in reality exist. Of such cases some will admit of a partial, and others of a perfect cure. But, in confirmed broken wind, whatever the remedy be which is employed, no good effect, if any effect at all, can be expected. Bleeding, blistering the chest

and throat, keeping the bowels moderately open, soft food, pure air, regular and gentle exercise, and good grooming, are the only remedies on which we can place any confidence. This will be seen from the result of the following cases, which may, perhaps, be more properly defined asthma than broken wind.

---

## ASTHMA OR BROKEN WIND.

### CASE I.

MAY, 1803.—A gentleman sent a horse for my advice, which, to all appearance, was so broken winded, that I considered him entirely beyond the reach of any remedy that could possibly be devised. The proprietor, however, was anxious to leave him under my charge, in order that I might try on him any experiments, which I might think proper. He was so ill,

that the ostler expected to find him dead in the stable every morning. I therefore could give but little hope of success. By way of doing something, however, I ordered him to be fed upon sliced carrots and bran mashes, and to get an hour's gentle exercise every day. This was persevered in for about two weeks. The proprietor then finding that there was no progress made in a cure, nor likely to be made, sold him to another person, for twelve pounds. This man fed him with boiled barley and lintseed meal, without employing any other remedy, and, in the course of a fortnight, I am credibly informed every symptom of disease had left him, except a slight cough. He then turned him out to grass during the whole summer, and about the spring of the year following, an acquaintance of mine purchased him for £30. This gentleman, during the summer of that year, refused, in my presence, £100 for him (offered by a dealer). The horse, however, was never free from a cough while he was in my friend's possession,

---

and we tried a variety of remedies in vain. After keeping him about two years, he began to stumble; and my friend, very prudently, parted with him, since which I lost all trace of him.

Whether it was the purgative effect of the barley that so remarkably relieved this case, it is difficult to determine. I think, however, it is most probable that the animal had coughed up, unobserved, a quantity of coagulable lymph, and was thereby relieved.

---

## ASTHMA

OR

## BROKEN WIND.

### CASE II.

NOVEMBER 23d, 1809.—Another horse, belonging to the proprietor, alluded to in the preceding case, was sent to my Infirmary, with very marked appearances of broken wind. In

fact, he was nearly as bad as the former ; but the cough was not so troublesome. I was, of course, anxious to restore him, if not to a better, at least to as good a state of health as the former one. With this view, I resolved to try the effect of external stimulants, opening medicines and soft food. I accordingly, on the day on which he arrived, blistered each side of the chest, and gave him one ounce of sulphur in a mash of bran. I was under the necessity of giving the medicine in mashes ; he was too shy to take it by the mouth, and, as I understood he would not refuse it in that way, I therefore gave it so ; and repeated it every morning and evening, till he was gently purged. On the 3d day, I blistered his throat. I continued to give the sulphur occasionally, so as to keep his bowels open, and had him exercised gently every day for an hour. On the tenth day, I was perfectly satisfied that all his symptoms were greatly relieved, and I resolved to repeat the blisters. This I did that day upon the chest, and on the third day after upon the throat. I then gave him some sliced



carrots, and a few oats, twice a-day, and every other night a mash of bran, with the sulphur. He recovered very fast after the second blistering, so that, on December 29th, he was sent home from the Infirmary, to all appearance perfectly well; and it never, so far as I could learn, returned upon him since. With regard to these two cases, it is proper to remark that both the horses had suffered severely under the effects of catarrh, for which they were treated by the groom. The proprietor very rarely rode a horse, and they were, of course, kept in what is called a pampered state; that is to say, they were too high fed, and too little exercised. I record them more particularly with a view of exemplifying how cautious a practitioner ought to be in giving a decisive opinion in such cases.

FINIS.











